FY 1996

Catalog of Training

95-045361

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Mollie Beattie
Director, U.S. Fish and Wildlife Service

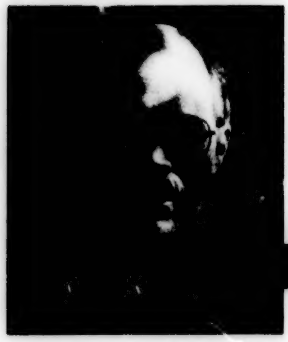
Ecosystem management. Geo-based Information Systems. Downsizing. Conservation Biology. Tax incentives for habitat management. Contingent valuation. Counterpart regulations. Habitat conservation plans. Public participation. Mediation. Corporate relations. None of us in the U.S. Fish and Wildlife Service can remember a time of such rapid and deep change in our organization's structure and the way we do business. That change is, of course, a direct reflection of the world in which we are operating, where technology, information, and social attitudes now seem to be in a constant state of flux. As someone wisely observed recently "The future ain't what it used to be".

Training and education are the Service's means of keeping abreast of this change, making sense of it and gaining the power to influence it. As such, it is our principal bridge to that everchanging destination called "the future" and is now more important than ever.

There are several very practical, important reasons for you to participate in the courses offered in the catalogue. First, it is essential for your careers and for the future of the Service that you stay informed about, trained in, and adapted to new technologies and information. Second, these courses provide you the valuable opportunities to share with your colleagues from other programs and ecosystems your experiences and successes in responding to the new challenges, a type of contact that's otherwise difficult to make in an organization that is spread across many thousands of miles. Third, the courses provide a chance to identify common problems and to apply our most experienced minds to their resolution. Finally, as we move closer to the realization of the dream of our National Education and Training Center—scheduled to open in 1996—it will be especially through participation in this year's program that you will be able to have a voice in the shaping of that facility and its success as a forum for continuing education, information sharing and problem solving. We will want to hear your thoughts on how best to use our training and education facility for reaching out to the public, business, states and tribes and the conservation community, as well as for our own advancement.

For your own future and that of our organization, I urge each of you to embrace the opportunity represented by this comprehensive catalogue. More than ever, your professional future and the success of our organization depend on it.

Mollie Beattie



John R. Lemon
Director, National Education and Training Center

FY 1996 is an exciting year at the National Education and Training Center. This year we will offer the widest selection of courses to date. In addition, our partnership programs with other bureaus and nongovernment organizations will expand, and construction of the new NETC campus will be completed. The goal of our training program is to provide to you, our customers, timely, quality training that meets your needs as a fish and wildlife conservation professional.

Construction on the new campus is progressing well, and we expect the facility will be ready for occupancy in late summer of 1996. Conservation professionals from both the public and private sectors will look at the new NETC campus as a "watering hole," a place where professionals meet. Here they will not only receive training, but exchange ideas and explore mutual solutions to difficult natural resource problems. Partnerships between government, communities and businesses are the keys to continued strong fish and wildlife conservation efforts. Whether you travel to the new NETC campus, or attend NETC training elsewhere, you may want to take advantage of a series of courses that address the issue of partnerships. We hope that students from the various groups and constituencies will come together to learn and share ideas on how partnerships can be used to improve the conservation of our natural resources.

This year's NETC catalog contains courses focusing on a wide range of topics. You will see new courses on exciting new areas, which range from Computer Applications in Fish and Wildlife Management, to Leadership Development for Senior Managers. There are technical courses such as Shorebird Ecology, An Approach to Ecosystem Conservation, Experimental Design, and Habitat Conservation Planning under the Endangered Species Act. Nontechnical courses include Natural Resource Negotiations, Team Effectiveness Training, Managing Change, and a variety of others.

Distance Learning continues to be an important component of the NETC program. We are developing initiatives that will provide training and educational materials and programs to field locations directly. You will experience important issue discussions, seminars and conferences, broadcast to the field via a satellite. You may use computer-based training transmitted via the internet. You can also expect to see videotaped presentations with accompanying printed materials available on appropriate topics. We will provide you with innovative, interactive and user-friendly training that allows you to make the best use of your limited time and resources.

These are difficult times for the natural resource professional. Issues are increasingly complex and controversial, making your jobs more difficult than ever before. Terms such as reengineering and reinvention continue to influence government agencies as we search for ways to make government more efficient and cost effective. These issues make the need for training more important than ever. The courses described in this catalog are in response to your needs. As issues and priorities evolve, our courses will evolve to meet your needs. We welcome your ideas on training courses not currently offered or any suggestions about how we can better serve you.

John R. Lemon

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General Information

National Education and Training Center

What is the National Education and Training Center and what are its goals?

The National Education and Training Center (NETC) was established by Director Beattie in 1994 to replace the Office of Training and Education. This transition promotes management emphasis and a central focus to the training and education activities of the Service. The goal of the NETC is to develop a motivated and well-trained workforce, empowered to accomplish the mission of the Fish and Wildlife Service.

This goal is accomplished by a Service-wide training and employee development program, focused on the Service and its mission. NETC offers a variety of training to enhance the biological, technical, and managerial skills of all Service employees. Training topics include the following areas: orientation and basic training, natural resource conservation, computer and statistical applications, education and outreach, administration, employee development, and supervision and leadership.

> ***The wise manager knows that when he trains people he is doing the single most important thing he can do to ensure his own success.***
>
> DIANNE TRACY
>
> 10 STEPS TO EMPOWERMENT: A COMMON-SENSE GUIDE TO MANAGING PEOPLE, P. 66

General Course Information

The courses listed in this catalog will be offered from October 1995 through September 1996. Most are open to individuals from the Federal, Tribal, State and Local governments, conservation groups, private businesses and private citizens.

Course Dates and Locations

- Specific course dates and locations are identified in the "Year at a Glance" supplement, which is issued quarterly.
- To obtain the most recent course information and schedule changes, or additional copies of this catalog or the "Year at a Glance," call **(304) 725-4417**, 24 hours a day. Special course announcements and updates to the "Year at a Glance" are also distributed and released through the regional offices.
- Course information is also available via electronic mail. See page 105 for details.

Phone, FAX, TTY

- The main phone number for the training center is **(304) 876-1600** (7:00 a.m. through 4:30 p.m. eastern time, Monday through Friday).
- The fax number for submitting applications is **(304) 725-0664**.
- A TTY line for hearing impaired users will be available beginning FY'96. Please send a fax to the number **(304) 728-6772** to request the TTY number.

Application Procedures

Applicants must submit the following:

- The application, which can be found on page 109 and the inside back cover for NETC courses.
- Non-Service applicants must also submit an SF182 or equivalent form with billing information.

Mailing address:
Registrar
U.S. Fish and Wildlife Service
National Education and Training Center
Rt. 3, Box 49
Kearneysville, WV 25430

Note: Refer to the specific announcement or course description for eligibility criteria, and the "Year at a Glance" for dates, locations, and points of contacts.

Tuition

- The training conducted by the NETC is provided without charge to employees of the Fish and Wildlife Service and National Biological Service.
- A nominal fee, as listed below, is charged to all other participants.

1 day course	$150
2 day course	$300
3 day course	$400
4 day course	$500
5 day course	$600
2 week course	$1,500
3 week course	$2,000

- Exceptions to the above charges are noted on the individual course listings for which they apply.
- Applicants from the private sector must send payment along with their application. (Note: **DO NOT SEND CASH.** Checks or money orders should be made payable to the U.S. Fish and Wildlife Service.)
- Participants from other government agencies (Federal, state, or local) will receive an invoice upon completion of the course. Please include a billing address on your application.

Cancellation

- Notify the NETC of cancellations as soon as possible, if you are unable to attend a course. The NETC Registrar will accept cancellations up to two weeks before the course. After that date applicants will be billed for the program whether or not they attend.
- Substitutions may be made any time before the start of the course.

Participants with Special Needs

- We will make every practical effort to ensure that training programs are accessible to all employees.
- Employees with special requirements who are enrolled in an NETC course should telephone us at least three weeks in advance to make appropriate arrangements. Special needs requirements should also be listed on their course application.
- An example of a person with special needs may be one who requires an interpreter.

Other Training

- Through the coordination of the NETC, the Service participates in many training programs sponsored by the Department, other Federal agencies, universities and the private sector. Some are listed in this catalog, but many are not. To obtain information on training opportunities available outside the NETC, call (304) 725-4417.
- Although the primary focus of the NETC is on the continuing training needs of Service employees, NETC will consider requests to design and deliver customized courses for Federal, state, tribal and other government subdivisions, on a cost reimbursable basis. To discuss the possibility of arranging a course, please write to the NETC, or call us at (304) 725-4417, so we can assign an appropriate staff member to work with you.

"The mind is like a TV set—when it goes blank, it's a good idea to turn off the sound."
— COMMUNICATION BRIEFINGS

NETC Training Catalog Available Through CC:Mail

- The staff at NETC is continuing to expand its efforts to serve our customers. Our newest service is the Electronic Training Catalog available through CC:Mail. The electronic catalog provides the most up-to-date course information including course descriptions, dates and locations. Accessing the electronic catalog is easy. Just follow the instructions found on page 105.
- If you are having difficulty accessing the electronic catalog contact your IRM or ADP representative. If you have questions or comments concerning courses in our electronic catalog please contact the Registrar at (304) 876-1600 ext. 608.

"Don't waste time learning the 'tricks of the trade'. Instead, learn the trade"
— ANON

QUOTES FROM ALDO LEOPOLD'S SAND COUNTY ALMANAC

A land ethic reflects the existence of an ecological conscience.

Conservation is a state of harmony between men and land.

I sit in happy meditation on my rock, pondering upon the ways of trout and men.

All ethics rest upon a single premise: that the individual is a member of a community of interdependent parts.

Introductory Training

Course #ECS5206
ECOLOGICAL SERVICES BASIC TRAINING

Length: 8 days; 64 hours

Audience: New staff to the Fish and Wildlife Service's Ecological Services (ES) program, nationwide.

Course Description: Participants will be provided an overview of core programs, which include Endangered Species, Environmental Contaminants and Habitat Conservation activities (e.g., federal projects, wetland regulations, private lands, hydropower, mitigation policy). Service authorities, policies and field operations in each program will be discussed. Participants will learn from knowledgeable field personnel, during class sessions and will have opportunities to informally discuss, challenges at work, career options and goals with instructors and other Service employees. The course will emphasize the tools used by Ecological Services staff to protect fish and wildlife resources.

Objectives: Upon completion of the course, participants will be able to:

- Explain the major functions and responsibilities of the Endangered Species, Environmental Contaminants and Habitat Conservation programs.
- Identify policies and legislation that guide Ecological Services programs.
- Discuss the importance and effectiveness of an Ecosystem Approach to Conservation.
- Discuss methods to use Public Outreach as a means to reach effective conservation.
- Conduct simple assessments of proposed development impacts on fish and wildlife resource.
- Describe the relationships between the Washington, Regional, and Field Offices in the Service's Ecological Services program.
- Recognize regional, programmatic, and environmental differences within Ecological Services.

Point of Contact: Monica Tomosy, Environmental Conservation Branch, Phone: (304) 876-1600 ext. 402; Fax: (304) 725-0664

"Instead of using the word problem, try substituting the word opportunity"
— ANON

Course #WLD4307
REFUGE MANAGEMENT TRAINING ACADEMY

Length: 14 Days; 112 Hours

Date and Location: TBA, usually late February—mid March. The Academy is restricted to four participants from each region. Nominations for the Academy are selected by each Regional Office.

Audience: Employees of the National Wildlife Refuge System (1–3 years experience), including refuge operations specialist, wildlife biologists, outdoor recreation planners, and refuge officers.

Course Description: The Academy provides an overview of the programs, policies, issues and mandates related to the operation of the National Wildlife Refuge System. The Academy gives participants an opportunity to meet Service employees from the field, regional and national offices. The Academy provides participants a forum to develop and foster a professional communication network. The Academy includes classroom instruction, field trips to local refuges, practical exercises, group discussions, and individual presentations. Sessions include Current and Historical Perspectives, Refuge Compatibility Determinations, Interpersonal Skills Development, Education and Visitor Services, Refuge Budget Process, Media Relations, Water Rights, Cultural Resources, Visitor and Resource Protection, NEPA,

Refuge Planning Strategies, Wildlife Health, Endangered Species, Community Relations,

Ecosystem Approaches to Resource Conservation, and Conservation Ethics & Bio Politics

Objectives:

- Demonstrate basic skills in communications, conflict resolution, team problem-solving, and media relations.
- Identify the basic concepts and procedures for refuge compatibility determinations, refuge planning strategies, NEPA compliance, public outreach, etc.
- Describe the National Wildlife Refuge System's roles and responsibilities for endangered species, migratory birds, biological diversity, fire management, wildlife health, wilderness management, cultural resources, visitor safety and public outreach.
- From a historical and current perspective, describe Service philosophy, policy, and legal mandates and goals for managing the National Wildlife Refuge System.
- Identify various techniques, procedures, and approaches that a refuge could develop and use in its resource management and public outreach programs.

Point of Contact: Jim Clark, Wildlife Training Branch, Leetown, WV, Phone: (304) 876-1600, ext. 401; Fax: (304) 725-0664.

> ***"I feel it deeply that I can work as a free man at a time when an oppressive lack of freedom is the lot of so many, as also that though my immediate work is material, yet I have at the same time opportunities of occupying myself in the sphere of the spiritual and intellectual. That the circumstances of my life provide in such varied ways favorable conditions for my work, I accept as something of which I would fain prove myself worthy."***
>
> — ALBERT SCHWEITZER

Resource Conservation

Course #FIS2119

AN APPROACH TO ECOSYSTEM CONSERVATION

Length: 5 days, 40 hours

Audience: Service biologists, land managers, planners, and policy makers.

Course Description: This course presents an integrated approach to ecosystem conservation. Important conservation biology principles (particularly landscape ecology precepts) and comprehensive management system (CMS) principles are discussed. CMS is used as a framework to implement conservation biology principles. Numerous class activities are used to strengthen learned principles and provide additional insights into ecosystem conservation implementation.

Objectives: Upon completion of the program, participants will be able to:

- Contrast new vs. old ecology.
- Discuss an operational definition of biodiversity.
- Describe the species concept in biodiversity.
- Contrast the population and community level approaches to ecosystem conservation.
- List and define the four levels of population uncertainty.
- Describe metapopulations concepts.
- Describe the major steps in population viability analysis and minimum viable population analysis.
- Describe various characteristics of landscape structure (e.g., fragmentation, edge, connectivity, matrix, size).
- List the general factors in landscape and reserve design.
- Describe the framework for implementing conservation ecology principles.
- Design, and implement a comprehensive planning process for projects and lands under their jurisdiction.
- Define planning terminology.
- Describe the four stages in a comprehensive planning process.
- Compare and contrast the concepts of management goals, objectives, tactics, and projects.
- Identify resource issues and inventory/evaluation needs.
- Identify planning deficiencies that have occurred in specific circumstances, and identify techniques to overcome these deficiencies.
- Identify stakeholders and their appropriate levels of involvement.
- Describe the benefits of stakeholder participation.
- Identify strengths and weaknesses of existing management plans, and evaluate their likely effectiveness as a guide to managers.
- Return to their work stations with a package of ideas, techniques, and background materials to assist them in the implementation of ecosystem conservation principles.

Point of Contact: June McIlwain, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 290; Fax: (304) 725-0664

"Be willing to lose a battle in order to win the war"
— ANON

Course #WLD2121
ECOSYSTEM APPROACH SEMINARS

Length: 1–2 days, 8–16 hours

Audience: Open to all Service employees, but will be of particular interest to biologists, managers and administrators. Seminars are generally organized as part of a larger regional project leaders meeting.

Course Description: The seminar series provides an overview of the concepts and practices of an ecosystem approach to conservation. The seminars are designed to familiarize participants with new philosophies in conservation biology and help them integrate traditional conservation approaches with the new ecosystem approach. Scheduled speakers are at the forefront of the national discussion of the ecosystem approach, and include noted authors, professors, federal employees, and other public and private land management professionals.

Objectives: Upon completion of the seminar, participants will be better able to:

- Describe the new philosophies of conservation biology and landscape ecology.
- Expand and integrate traditional conservation approaches with the new ecosystem approach, including the changing human dimensions in conservation science and land management.

Point of Contact: Jim Siegel, Wildlife Training Branch, Phone: (304) 876-1600 ext. 246; Fax: (304) 725-0664

Course #FIS2118
FISH & WILDLIFE MANAGEMENT PLANNING

Length: 3 days; 24 hours

Audience: This course is designed for individuals responsible for the successful development and implementation of fish and wildlife programs (e.g. natural resource management on tribal lands, military bases, refuges, natural areas, river basins, etc). Principles taught are also very useful to those involved in single project development/implementation or in agency-level program planning.

Course Description: This course provides a framework to organize management activities. This framework should assist individuals in formulating explicit goals and objectives for their programs and increase their efficiency in obtaining them. The training will be consistent with the definition of planning as an "…integrated system of management that includes all activities leading to the development and implementation of goals, program objectives, operational strategies, and progress evaluation."

Objectives: Upon completion of the program, participants will be able to:

- Design, and implement a comprehensive planning process for projects and lands under their jurisdiction.
- Define planning terminology.
- Describe the four stages in a comprehensive planning process.

> ***"It is not the critic who counts, not the man who points out how the strong man stumbled or where the doer of deeds could have done better. The credit belongs to the man who is actually in the arena; whose face is marred by dust and sweat and blood; who strives valiantly; who errs and comes short again and again; who knows the great enthusiasms, the great devotions, and spends himself in a worthy cause; who, at the best, knows in the end the triumph of high achievement; and who, at the worst, if he fails, at least fails while daring greatly, so that his place shall never be with those cold and timid souls who know neither victory nor defeat."***
>
> — THEODORE ROOSEVELT

- Compare and contrast the concepts of management goals, objectives, tactics, and projects.
- Identify resource issues and inventory/evaluation needs.
- Identify planning deficiencies that have occurred in specific circumstances, and identify techniques to overcome these deficiencies.
- Identify stakeholders and their appropriate levels of involvement.
- Describe the benefits of stakeholder participation.
- Identify strengths and weaknesses of existing management plans, and evaluate their likely effectiveness as a guide to managers.
- Participate as a partner in the in-class development of a prototype management plan.
- Return to their work stations with a package of ideas, techniques, and background materials to assist them in the implementation of comprehensive planning.

Point of Contact: June McIlwain, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 290; Fax: (304) 725-0664

Course #WLD2123
PLANNING BEYOND THE BOUNDARY SIGN

Length: 5 days; 40 hours

Audience: This course is designed for refuge and hatchery project leaders and managers, and other Service employees responsible for planning, management and oversight of Service lands.

Course Description: This course provides an overview of the land use planning, regulatory processes, and decision-making mechanisms of properties adjacent to Service lands. The course will help develop the skills and abilities of Service managers to effectively participate in these decisions. Using Service case histories, this course will provide a framework for (1) understanding land use planning issues and concepts that affect resources on and off Service lands, (2) developing strategies for removing barriers between refuges and hatcheries and outside interests to protect refuge resources, (3) applying approaches to work effectively with local communities, adjacent landowners, and other private entities, and (4) forming effective partnerships with other federal, state, local and private entities. Speakers will include Service project leaders, local city officials, county planners, and representatives from special interest groups.

Objectives: Upon completion of the course/program participants will be able to:

- Identify the affects neighbors may have on Service resources.
- Identify strategies for protecting resources beyond the Service boundaries.
- Describe a team approach using working relationships and partnerships with federal and local governments, neighbors, and special interest groups adjacent to Service lands.

Point of Contact: Nancy Streeter, Wildlife Training Branch, Phone: (304) 867-1600 ext. 273; Fax: (304) 725-0664.

"...before we plow an unfamiliar patch
It is well to be informed about the winds,
About the variations in the sky,
The native traits and habits of the place,
What each locale permits, and what denies."
— VIRGIL, THE GEORGICS (CIRCA 30 B.C.)

Course #WLD2115
CONSERVATION EASEMENTS

Length: TBA

Date and Location: TBA, A course flyer will be distributed to provide specific dates and locations.

Audience: Division chiefs, project leaders, or those employees needing a knowledge of the use of conservation easements.

Course Description: This course is currently under development. An introduction to the concepts, use and management of conservation easements. Service authorities and policies related to conservation easements will be examined. Case histories of easement projects developed and managed by the U.S. Fish and Wildlife Service will be discussed.

Objectives: This course is currently being developed. A course announcement will be issued at a later date providing objectives and other appropriate course information.

Point of Contact: Nancy Streeter, Wildlife Training Branch, Phone: (304) 876-1600 ext. 273; Fax: (304) 725-0664.

Course #WLD2120
NONGAME BIRD SURVEY AND MONITORING METHODS

Length: 5 days, 40 hours

Audience: Refuge biologists, refuge managers, other service biologists. Maximum class size is 30. People interested should contact their Regional Nongame Bird Coordinator before applying.

Course Description: Course will provide an overview of the survey, inventory and monitoring techniques to assess populations of various nongame bird groups, including songbirds, colonial waterbirds, and raptors. Course will focus on helping biologists establish monitoring programs.

Objectives: Upon completion of the course, participants will be able to:

- Demonstrate various nongame bird survey techniques.
- Establish bird monitoring programs on refuges and other conservation areas.

Point of Contact: Jim Siegel, Wildlife Training Branch, Phone: (304) 876-1600 ext. 246; Fax: (304) 725-0664.

Course #WLD2119
SHOREBIRD ECOLOGY AND MANAGEMENT

Length: 3.5 days; 28 hours

Audience: Refuge biologists, refuge managers, and other service biologists. Maximum class is 30. People interested should contact their Regional Nongame Bird Coordinator before applying.

Course Description: The purpose of the course is to illustrate how to integrate shorebird management strategies into wetland management planning projects. Sessions include shorebird identification and ecology, population survey techniques, and managing impoundments and moist soil units for shorebirds. Sessions are conducted in the classroom and in the field.

Objectives: Upon completion of the course, participants will be able to:

- Identify various common shorebird species and their habitat, and demonstrate survey and monitoring techniques.
- Integrate habitat management strategies for shorebirds into existing refuge wetland management projects.

Point of Contact: Jim Siegel, Wildlife Training Branch, Phone: (304) 876-1600 ext. 246; Fax: (304) 725-0664.

"Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher 'standard of living' is worth its cost in things natural, wild, and free. For us of the minority, the opportunity to see geese is more important than television, and the chance to find a pasque flower is a right as inalienable as free speech."

— LEOPOLD

Course #FIS1130
BASIC BIOLOGY FOR TECHNICIANS

Length: 5 days; 36 hours

Audience: This course provides training in basic fishery field techniques to biological and physical science technicians, biological aids, and animal caretakers working in fish hatcheries and fishery resources offices.

Course Description: The course covers the basics of fish identification and handling, habitat requirements of various fish species, water quality analysis, and toxicology and contaminants.

Objectives: Upon completion of the program, participants will be able to:

- Identify common fish species and show how to use a key for identification.
- Describe the preferred habitat of common game and non-game fish.
- List the basic types of equipment used in fish population sampling along with their target species and efficiencies.
- Measure water temperature, dissolved oxygen, nitrites, nitrates, carbon dioxide, pH, alkalinity, total hardness, and levels of ammonia using meters and kits.
- Describe basic principles of fish physiology.
- Properly transport, handle, and care for fish.
- Use a key to identify common aquatic invertebrates.

Point of Contact: June McIlwain, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 290; Fax: (304) 725-0664

Course #FIS2203
FISH STOCK ASSESSMENT

Length: 10 days; 76 hours

Audience: This course is designed for fisheries project leaders and assistant leaders, regional office personnel dealing with harvest management issues, refuge managers addressing fishery management issues, Ecological Services project leaders (particularly T & E specialists), or any fisheries worker.

Course Description: This course provides a working knowledge of fish population dynamics and stock assessment techniques that will allow the participant to: a) understand the advantages and limitations of these techniques; b) provide critical review of stock assessments; and c) communicate effectively with experts in the fields of stock assessment and population dynamics. Principles discussed are applied through numerous computer-based exercises.

Objectives: Upon completion of the program, participants will be able to:

- Discuss theories that form the basis for managing exploited fish stocks, including organism growth, population growth, competition, predation, and stock-recruitment.
- Estimate, compute, and interpret population parameters (abundance, growth, mortality, recruitment).
- Define underlying assumptions upon which stock assessment methods are based.
- Develop a conceptual systems model of a fishery and identify components and parameters that need to be measured to implement the model.
- Create population models on microcomputers for fish stock assessment and yield projections.
- Apply appropriate theory and mathematical formulations to estimate potential yields for fish stocks.

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664

Course #FIS1135
INVESTIGATING FISH KILLS

Length: 3 days; 24 hours

Audience: Any fisheries worker

Course Description: This course describes basic procedure to be followed during fish kill investigations.

Objectives: Upon completion of this course, the participant will be able to:

- Plan and coordinate the investigation.
- Discuss the protocol of action to be followed.
- Interpret the conditions at the scene.
- Sample for water quality.
- Accurately use fish kill counting guidelines.
- Assess monetary value of the kill.
- Identify various causes of fish kills
- Use the proper equipment to investigate and analyze the kill.
- Write a complete report on the fish kill.

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242; Fax: (304) 725-0664

"A professional is someone who can do his best work when he doesn't feel like it."

— ALISTAIR COOKE

Course #FIS2116
FISH TRACKING TECHNIQUES

Length: 5 days; 36 hours

Audience: This course is primarily designed for managers requiring data on fish movements, habitat use, and/or physiology.

Course Description: Topics discussed include biotelemetry study design and data analysis, principles of ultrasonic and radio telemetry and transmitter implant techniques. There is also some treatment of population assessment techniques. A field exercise is included.

Objectives: Upon completion of the program, participants will be able to:

- Properly design biotelemetry projects.
- Describe elements of data analysis procedures.
- Properly record, analyze, and report tracking data.
- Describe strengths and limitations of ultrasonic and radio telemetry, PIT tags, and hydroacoustics.
- Attach or implant tracking devices in fish.
- List sources of fish tracking equipment.
- Describe differences and similarities among equipment from various companies.

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664

Course #FIS2101
PRINCIPLES & TECHNIQUES OF ELECTROFISHING

Length: 3 days; 24 hours

Audience: The course is designed for biologists who have had at least some experience in electrofishing.

Course Description: This course illustrates the basic principles of electricity as applied to electrofishing. The goals of this course are to (1) familiarize participants with electric circuit and field theory, system components, and sampling considerations (thereby providing a framework for increasing the efficiency and standardization of electrofishing operations), (2) provide safety training, and (3) promote the awareness of and methods to minimize electrofishing-induced fish injury.

Objectives: Upon completion of the course, participants will be able to:

- Describe basic principles of electricity in circuits (circuit theory) and in water (electric field theory).
- List three major voltage waveforms and calculate peak-to-peak voltage, rms voltage, frequency, pulse duty cycle, and power.
- Describe the power transfer theory of electrofishing.
- Discuss the effects that various electrode systems have on electric field configuration.

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- List the arrangement and functions of the major components of an electrofishing system.
- Describe the major types of electrofishing equipment that are currently in use and discuss the capabilities, limitations, and safety features of each.
- Know the proper safety precautions to employ while using electrofishing equipment.
- Calculate electrode resistance to determine total power demand and relative power at different electrodes.
- Map the voltage/power gradient field projected by an electrofishing unit.
- Calculate power requirements for effective fish sampling over a range of water conductivities.
- Discuss factors affecting electrofishing efficiency.
- Discuss the effects of electrofishing on fish (e.g. stress and injury).
- Apply principles learned to standardize and increase the efficiency of electrofishing operations.

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664

Course #FIS3104
WATER QUALITY MONITORING

Length: 2 days; 16 hours

Audience: Any fisheries worker

Course Description: This course introduces water chemistry principles, sampling techniques, and monitoring protocols to the participants. Field sampling and testing is done using both chemical test kits and meters. Participants perform various water chemistry tests, analyze the results, and calculate chemical concentrations.

Objectives: Upon completion of the program, participants will be able to:

- Identify the principles of basic limnology, nutrient dynamics, and eutrophication.
- Develop an environmental monitoring protocol.
- List basic water quality standards required for both extensive and intensive fish culture.
- Describe specific water quality requirements of various fish species.
- Perform basic water chemistry tests using chemical test kits and meters.
- Calculate concentrations of various chemicals in water from results of field sampling and testing.
- Design a water quality monitoring protocol for a fish hatchery.

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242; Fax: (304) 725-0664

> ***"Nothing in this world can take the place of persistence. Talent will not; nothing is more common than unsuccessful people with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent. The slogan 'press on' has solved and always will solve the problems of the human race."***
>
> — CALVIN COOLIDGE

Course #FIS3102
PISCICIDE APPLICATIONS

Length: 5 days; 40 hours

Audience: Any fisheries worker

Course Description: This course will cover the chemicals used in the control of undesirable fish species, techniques for their application, and appropriate procedures before and after piscicide application. Students will participate in an actual fish control project.

Objectives: Upon completion of this course, participants will be able to:

- List the uses of piscicides in general fisheries management.
- Obtain the proper approvals for a fish control project.
- Avoid negative publicity of a reclamation effort.
- List the chemicals used and discuss their advantages and disadvantages.
- Identify the effects of piscicides on other organisms.
- Calculate the amount of piscicide to use in both flowing and enclosed systems.
- Discuss various methods of piscicide application.
- Properly schedule piscicide applications.
- Neutralize piscicides after application.
- Properly dispose of fish that have died.
- Revive fish that inadvertently were treated.

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664.

Course #FIS1102
FISH GENETICS

Length: 5 days; 36 hours

Audience: Designed for fisheries biologists, hatchery managers, and program administrators.

Course Description: This course presents an introduction to the basic principles of population genetics and how these principles may be applied to maximize the potential for successful restoration/creation of fisheries resources.

Objectives: Upon completion of the program, participants will be able to:

- Explain basic principles of qualitative, quantitative, and population genetics.
- List the implications of genetic variation (or lack thereof) to hatchery and wild populations.
- Apply methods of broodstock founding (obtaining a genetically representative sample of the target endemic population or hatchery strain).
- Apply methods of maintenance and monitoring with an objective of maintaining genetic variability of the hatchery broodstock (whether originally obtained as an established strain or from a wild population).
- Use established strains as a management tool.
- Describe selection, strain crossbreeding and evaluation.
- Discuss possible genetic implications of the interaction of hatchery stocks and endemic populations (loss of genetic variability among or within populations, reduction in performance of offspring, tradeoffs of supportive breeding [supplemental stocking], etc.).
- Identify methods that maximize the potential for successful restoration/creation of fishery resources through maintenance, supplemental, or introduction stockings.
- Identify methods of minimizing potential hatchery-induced genetic structure changes in endemic populations.
- Evaluate broodstock practices at selected state and Federal facilitiess.

Point of Contact: June McIlwain, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 290; Fax: (304) 725-0664

Course #FIS2102

FISHERY MANAGEMENT OF SMALL IMPOUNDMENTS

Length: 5 days; 36 hours

Audience: Designed for fisheries biologists and managers.

Course Description: This course presents the principles involved in managing impoundments of 50 acres or less. It will review past and future management strategies.

Objectives: Upon completion of the course, participants will be able to:

- Define terminology applicable to small impoundment systems.
- Discuss fishery management perspectives and philosophies for small impoundments.
- Apply a systems approach of management by objectives.
- Describe the population dynamic processes (reproduction, recruitment, growth, and mortality) that governs the production of fish in small impoundments and apply these concepts in fishery management.
- Discuss pond siting and construction, fish species selection, and stocking/harvest strategies.
- Select appropriate sampling methods for physical-chemical habitat variables and fish populations.
- Describe fish population and fishing quality assessment indices.
- Use software programs to derive indice statistics for fish population assessment.
- Apply appropriate methods for manipulating water quality, physical habitat, and fish populations (e.g. via fertilizing, renovation, harvest regulations) to achieve management objectives.

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664

COURSE #FIS2107

AQUATIC HABITAT RESTORATION AND MANAGEMENT

Length: 5 days; 40 hours

Audience: Fishery biologists, technicians and others involved in aquatic habitat restoration and management.

Course Description: This course is currently being developed. A course flyer will be distributed to provide specific content and logistical information.

Point of Contact: June McIlwain, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 290; Fax: (304) 725-0664

"Don't expect life to be fair"

— ANON

Course #FIS2110
FISH PASSAGEWAYS & DIVERSION STRUCTURES

Length: 5 days; 36 hours

Audience: This course is intended to assist fisheries biologists, bioengineering specialists, and others involved in planning, construction, and operation of fish passageways and guidance systems that enhance the migration of various fish species.

Course Description: This course presents state-of-the-art information on fish passageways and fish diversion/guidance systems. The intent is to provide a sufficient foundation that will enable the participant to be a contributing member of a passageway design/operation team.

Objectives: Upon completion of the program, participants will be able to:

- List general passageway system and diversion system components and functions.
- Discuss the guidance concept.
- List the basic requirements for efficient passageway and diversion structures.
- List passageway, diversion, and guidance structure types and their advantages/disadvantages.
- List and discuss pre-design data requirements for fishways.
- Discuss basic design criteria for passageway and diversion structures.
- Perform quantitative analysis of proposed passageway or diversion structure design to distinguish between hydraulically and biomechanically efficient and inefficient passageways.
- List the most common operational problems associated with fish passageway and diversion structures and the appropriate corrective actions.

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664

Course #FIS2115
ISSUES IN FISHERIES RESOURCES MANAGEMENT

Length: 2 days; 16 hours

Audience: Designed for fisheries managers and program administrators.

Course Description: This course presents a variety of topics of current interest and potential significant impact on fisheries resources. Topics to be selected by requesting audience.

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664

Course #FIS1234
WARM & COOL WATER FISH CULTURE

Length: 10 days; 76 hours

Audience: Any fisheries worker

Course Description: This course is designed to familiarize the participants with the basic principles, concepts, and methods currently in use for the production of warm and cool water fish species. Species include largemouth bass, bluegill, channel catfish, walleye, northern pike, striped bass and their hybrids, sturgeon, paddlefish, muskellunge, and forage species. Topics include water quality analysis, fish health management, zooplankton sampling and identification, nuisance species control, pond fertilization and management, fish nutrition, extensive and intensive culture methods, and harvest and transportation. Laboratories will be held for water quality analysis, fish health assessments, and zooplankton sampling and identification.

Objectives: Upon completion of the program, participants will be able to:

- Perform water chemistry analyses to determine levels of O_2, CO_2, pH, alkalinity, hardness, total ammonia and NH_3, NO_2, NO_3.
- Correct problems in the pond environment which have resulted in low oxygen, high metabolic waste, or increased vegetation growth.
- Recognize common fish disease signs.
- Perform a fish necropsy and health assessment.
- Describe life histories of various zooplankton common in fish ponds.
- Collect, identify, and enumerate various zooplankton.
- Manage pond water quality, vegetation, and plankton populations.
- Calculate feeding levels for the various species discussed based on weights and numbers of fry, fingerlings, and adults.
- Calculate growth rates.
- Describe intensive and extensive culture methods for covered species.
- Maintain hatchery production records.
- Harvest, hold, and transport fish to stocking areas or distribution points in good condition.
- Administer pond and tank treatments correctly.

Point of Contact: June McIlwain, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 290; Fax: (304) 725-0664

Course #FIS1201
COLDWATER FISH CULTURE

Length: 10 days; 76 hours

Audience: Any fisheries worker

Course Description: This is a basic course covering the principles, concepts, and methods used in intensive (primarily Salmonid) fish culture. Topics include historical perspective, fisheries management, fish physiology and stress, water quality and chemistry, fish health management, fish nutrition, fish growth, feeding guides, record keeping, carrying capacity, fish culture methods, brood stock management, and water treatment processes. Laboratories will be held for water chemistry testing and for fish health assessments. Applications of growth and carrying capacity models, fish feed projections and ordering, lot history development, and fish culture methods will be provided through case studies and problem solving.

Objectives: Upon completion of the program, participants will be able to:

- Describe the historical development of aquaculture.
- List different program objectives for aquaculture products.
- Explain the role of fisheries management and its effect on program objectives.
- Describe basic fish physiological processes.
- Discuss the effects of hatchery rearing conditions on product quality.
- List the basic water related requirements of a Salmonid.
- Perform basic water chemistry tests using a water test kit.

- Describe several fish disease prevention and control measures.
- Perform a basic fish necropsy and health assessment.
- List the major nutritional requirements of a Salmonid.
- Describe the relationship between fish length and fish weight.
- Use Salmonid growth formulas to develop a length-weight table.
- Project fish growth based on water temperature and fish food conversion.
- Maintain a system for keeping hatchery records.
- Calculate carrying capacity for a fish hatchery based on water inflow and pond space.
- Outline the phases of production for a typical Salmonid hatchery.
- Describe and discuss the common fish production methods from egg to stocking.
- Calculate egg requirements for a given fish stocking program.
- Explain the importance of genetic principles when establishing a brood stock.
- List at least four methods used in spawning Salmonids.
- Describe at least five methods used to aerate hatchery water.

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242; Fax: (304) 725-0664

"Watch your thoughts; they become words. Watch your words; they become actions. Watch your actions; they become habits. Watch your habits; they become character. Watch your character; it becomes your destiny."

— FRANK OUTLAW

Course #FIS1208
PACIFIC SALMON CULTURE

Length: 10 days; 76 hours

Audience: Any fisheries worker

Course Description: This is a basic course covering the principles, concepts, and methods used in intensive Salmon culture. Topics include historical perspective, fisheries management, fish physiology and stress, water quality and chemistry, fish health management, fish nutrition, fish growth, feeding guides, record keeping, carrying capacity, fish culture methods, brood stock management, and water treatment processes. Laboratories will be held for water chemistry testing and for fish health assessments. Applications of growth and carrying capacity models, fish feed projections and ordering, lot history development, and fish culture methods are provided through case studies and problem solving.

Objectives: Upon completion of the program, participants will be able to:

- Describe the historical development of aquaculture.
- List different program objectives for aquaculture products.
- Explain the role of fisheries management and its effect on program objectives.
- Understand basic fish physiological processes.
- Discuss the effects of hatchery rearing conditions on product quality.
- List the basic water related requirements of a Salmonid.
- Perform basic water chemistry tests using a water test kit.

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- Describe several fish disease prevention and control measures.
- Perform a basic fish necropsy and health assessment.
- List the major nutritional requirements of a Salmonid.
- Describe the relationship between fish length and fish weight.
- Use Salmonid growth formulas to develop a length-weight table.
- Project fish growth based on water temperature and fish food conversion.
- Maintain a system for keeping hatchery records.
- Calculate carrying capacity for a fish hatchery based on water inflow and pond space.
- Outline the phases of production for a typical Salmonid hatchery.
- Describe and discuss the common fish production methods from egg to stocking.
- Calculate egg requirements for a given fish stocking program.
- Explain the importance of genetic principles when establishing a brood stock.
- List at least four methods used in spawning Salmonids.
- Describe at least five methods used to aerate hatchery water.

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242; Fax: (304) 725-0664

Course #FIS1104
INTRODUCTION TO FISH HEALTH

Length: 5 days; 36 hours

Audience: Any fisheries worker

Course Description: This course is a beginning level, introductory program that familiarizes participants with the signs, causes, control and prevention of infectious and noninfectious fish diseases.

Objectives: Upon completion of the program, participants will be able to:

- Recognize and identify the external or gross signs of the more common fish diseases and parasites.
- Stain slides for preliminary identification of common disease organisms.
- Isolate and culture some disease organisms.
- Calculate dosages or treatment levels.
- Recognize the need for professional help when the condition exists, and know where to go for that help.
- Properly care for and package moribund or dead fish as specimens for shipment to diagnostic laboratories.
- Maintain proper records.
- Describe the causes and nature of fish diseases.

Point of Contact: Chris Horsch, Bramch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242; Fax: (304) 725-0664

"The activist is not the man who says the river is dirty. The activist is the man who cleans up the river"
— ANON

Course #FIS1129
INTERMEDIATE FISH HEALTH (VARIOUS TOPICS)

Length: 5 days: 40 hours

Audience: Experienced field biologists.

Course Description: This series of courses is an intermediate level program. It is designed to provide an in-depth look at selected viral, bacterial, and parasitic fish diseases. A basic understanding of microbiology and/or completion of the "Introduction to Fish Health" course is strongly recommended. The course is taught in both classroom and laboratory settings.

Objectives: Upon completion of this course, participants will be able to:

- Recognize and identify the gross clinical signs of the disease covered.
- Perform a routine fish necropsy.
- Collect and properly prepare the fish tissue for diagnostic laboratory tests.
- Isolate and culture covered disease organisms.
- Select approved disease preventative or control measures.
- Discuss the significance of the covered diseases in the various interagency fish health programs and impacts to fish culture and management programs.

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242; Fax: (304) 725-0664.

Course #FIS1131
WATER TREATMENT PROCESSES FOR HATCHERIES

Length: 3 days; 24 hours

Audience: Hatchery personnel

Course Description: This course is designed to familiarize participants with the technology used in the treatment of water for safe hatchery use and discharge in compliance with NPDES standards. Oxygen injection, ozonation, biofiltration, and disinfection systems are among the topics to be covered. This course will include both lecture and case study problem solving.

Objectives: Upon completion of the program, participants will be able to:

- Determine dissolved gas levels in hatchery water.
- Describe the various methods used to aerate and de-gas water using pure oxygen.
- Discuss the advantages and disadvantages of different oxygen injection units and systems.
- Explain the various methods used to disinfect hatchery water inflows and effluent.
- Identify the maintenance requirements for various water treatment systems.
- Describe methods for reconditioning hatchery water for re-use.
- Select an appropriate water treatment system for their facility.
- Discuss methods for treating domestic/potable water to meet EPA/state requirements of the Clean Water Act.
- Identify requirements for hazardous and other waste handling, storage, and removal.

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242; Fax: (304) 725-0664

"Optimism is an intellectual choice"
— ANON

Course #FIS1132
PHARMACOLOGY FOR FISH HEALTH BIOLOGISTS

Length: 3 days; 24 hours

Audience: Fish Health Biologists and Technicians

Course Description: This course is an intermediate level program designed to familiarize fish health specialist and technicians with the concepts and procedures used in pharmacology. Participants will also review the Investigational New Animal Drug permit process and the protocols for gathering and analyzing data.

Objectives: Upon completion of this course, participants will be able to:

- Identify various types of therapeutants and routes of administration.
- List various drugs available in human and vet medicine which may apply in fish culture.
- Describe "minimum inhibitory concentrations" of various drugs.
- Explain routes of drug distribution within an animal.
- Describe how various drugs are eliminated from tissues.
- Discuss the toxicological aspects of various drugs.
- Perform various drug analyses using techniques such as immunoassays and chromatography.
- Interpret results from drug analyses..

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242 Fax: (304) 725-0664

Course #FIS1133
USE OF DRUGS AND CHEMICALS IN FISH CULTURE AND FISHERIES MANAGEMENT

Length: 3 days; 20 hours

Audience: Hatchery personnel

Course Description: This course is designed to familiarize participants with the Investigational New Animal Drug (INAD), Food and Drug Administration (FDA), and the Environmental Protection Agency (EPA) approved drugs and chemicals, their proper use and disposal, and animal and human safety related to these compounds. The course will also offer an overview of the INAD process and the procedures and requirements for requesting, maintaining, and monitoring an INAD.

Objectives: Upon completion of the program, participants will be able to:

- Outline the INAD process.
- Describe the responsibilities of all cooperators under an INAD permit.
- List target animal safety, environmental, and human food safety concerns and measures.
- List the FDA and EPA approved compounds for use in aquaculture.
- Describe how these compounds are to be applied and under what constraints they be applied.

Point of Contact: June McIlwain, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 290; Fax: (304) 725-0664

Course #WLD4108
OVERVIEW OF FEDERAL & STATE WATER RIGHTS

Length: TBA

Audience: Project leaders, biologists and staff specialists

Course Description: This course is an introduction to the various water rights doctrines, Service water rights policies and procedures, and current strategies to address water issues. The course will provide an overview of the various water rights doctrines, including appropriative, riparian, federal reserved water rights, and public trust doctrines. This course will assist project leaders and other Service employees involved with water rights issues to understand basic water rights issues and how the Service manages its rights.

Objectives: This course is currently being developed. A course announcement will be issued at a later date providing objectives and other appropriate course information.

Point of Contact: Nancy Streeter, Wildlife Training Branch, Phone: (304) 876-1600 ext. 273, Fax: (304) 725-0664.

"Such is oftenest the young man's introduction to the forest, and the most original part of himself. He goes thither at first as a hunter and fisher, until at last, if he has the seeds of a better life in him, he distinguishes his proper objects, as a poet or naturalist it may be, and leaves the gun and fish-pole behind."
— Henry David Thoreau

Course #WLD2113
REFUGE COMPATIBILITY DETERMINATIONS

Length: 1.5 days

Audience: Project leaders and primary assistants, both experienced and those relatively new to the System.

Course Description: This course provides project leaders of varied experience levels with a background in making compatibility determinations on their refuges. Sessions will include discussions about Service policy and its impact on compatibility determinations, the legal status of issues concerning compatibility determinations, and applicability of legal authorities and regulations impacting compatibility and resource management and protection on refuges.

Objectives:

- Describe how past and present compatibility decisions and activities are based.
- Describe the policy elements and purposes of compatibility of uses on refuges.
- Describe the role of planning in the compatiblity process when compatibility determinations are necessary for Service uses and non-Service uses.

Point of Contact: Steve Wunderley, Wildlife Training Branch, Phone: (304) 876-1600, Fax: (304) 725-0664

Course #WLD2117
CULTURAL RESOURCES OVERVIEW

Length: TBA

Audience: Project leaders, biologists and staff specialists

Course Description: This course provides a basic overview of cultural resources management. Participants will become familiar with important cultural resource issues, including the basic principles, regulations, laws and policies affecting cultural resources. Instruction will provide the necessary steps to assure compliance with historic preservation laws prior to beginning any project.

Objectives: Upon completion of the course/program participants will be able to:

- Identify the steps necessary to comply with historic preservation laws.
- Identify areas requiring cultural resource evaluation when projects are planned.
- Determine the effects of projects on cultural resources.

Point of Contact: Nancy Streeter, Wildlife Training Branch, Phone: (304) 876-1600 ext. 273; Fax: (304) 725-0664.

Course #WLD2122
NATURAL RESOURCE LAW

Length: 3 days; 24 hours

Audience: Division chiefs, project leaders, biologists and staff specialists

Course Description: This course provides an overview of major Federal laws governing natural resources of interest to the U.S. Fish and Wildlife Service. Sessions will cover the legal authorities, case studies of selected laws, and their appropriate use. The laws governing each major Service program area will be addressed.

Objectives: Upon completion of the course/program participants will be able to:

- Identify the major laws affecting the management of Service program areas.
- Describe the process of how laws, regulations and policies are developed.
- Describe the differences between laws, regulations, treaties, compacts, executive orders and memoranda of agreements.

Point of Contact: Nancy Streeter, Wildlife Training Branch, Phone: (304) 876-1600 ext. 273; Fax: (304) 725-0664.

> ***"Look at a day when you are supremely satisfied at the end. It's not a day when you lounge around doing nothing. It's when you've had everything to do, and you've done it"***
>
> — ANON

Course #WLD2118
NATURAL RESOURCE POLICY

Length: 2 days; 16 hours

Audience: Division chiefs, project leaders, biologists and staff specialists

Course Description: The Service is charged with developing and implementing natural resource policy. How can some policies be so different from the laws they represent? This course focuses on the study of policy process and provides a framework that will guide Service employees from the emergence of a problem to the final enactment of a policy to address that problem. Examples and sample policies relevant to the Service will be used, including the identification of unique stakeholders, Service constraints and the laws that require special attention.

Objectives: Upon completion of the course/program participants will be able to:

- Identify the components of the natural resource policy process.
- Describe the factors affecting policy implementation.
- Explain how politics and litigation affect development of Service policies.

Point of Contact: Nancy Streeter, Wildlife Training Branch, Phone: (304) 876-1600 ext. 273; Fax: (304) 725-0664.

Course #FIS2120
NATIVE AMERICAN TRUST RESPONSIBILITIES

Length: 5 days; 40 hours

Audience: Any Department personnel who may be involved with trust responsibilities.

Course Description: This course is currently being developed. A course flyer will be distributed to provide specific content and logistical information..

Point of Contact: June McIlwain, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 290; Fax: (304) 725-0664

"An age is considered dark, not because the light fails to shine, but because people refuse to see it"
— ANON

Course #TEC7171
REAL ESTATE LAW

Length: 5 days (40 hours)

Audience: The course is intended for new realty personnel and for journey level personnel requiring a refresher.

Course Description: This one week course covers the basics of real estate law and Federal land acquisition. Topics covered will include methods of acquisition, estates in land, title, deeds, recordation, land descriptions, and condemnation.

Objectives: Upon completion of the program, participants will be able to:

- Recognize the differences between Federal and private land acquisition processes.
- Describe the major estates in land.
- Recognize common title defects and identify curative measures.
- Prepare a deed which includes all the required elements.
- Prepare documents which meet the requirements for recordation.
- Recognize defective land descriptions.
- Assist in the preparation of cases for condemnation.

Point of Contact: Catherine Sheppard, Technical Training Branch, Phone: (304) 876-1600, ext. 296, Fax: (304) 725-0664

Course #TEC7174
LEVEL I PREACQUISITION CONTAMINANTS SURVEY

Length: 2.5 days (20 hours)

Audience: The course is intended for Service employees who actually conduct contaminants surveys.

Course Description: The Department of Interior (DOI) has recently revised its requirements for preacquisition contaminants surveys. This course will provide instruction on completing the new Level I Contaminants Survey or its equivalent. Topics will include contaminants law, DOI and Service policy, background research, field investigations, safety, and survey documentation.

Objectives: Upon completion of the program, participants will be able to:

- Identify key provisions of contaminants legislation.
- Conduct surveys in accordance with DOI and Service policy.
- Identify and consult appropriate sources for background information.
- Identify contaminants of concern in the field.
- Conduct field investigations in a safe manner.
- Prepare survey documentation.

Point of Contact: Catherine Sheppard, Technical Training Branch, Phone: (304) 876-1600, ext. 296, Fax: (304) 725-0664

> ***"One of the most dangerous forms of human error is forgetting what one is trying to achieve"***
>
> — ANON

Course #ECS3111
NATURAL RESOURCE DAMAGE ASSESSMENT

Length: 5 days; 36 hours

Audience: Service biologists from the Environmental Contaminants Program, refuge biologists, and law enforcement agents whose responsibilities include evaluating and participating in Natural Resource Damage Assessments (NRDA). The course is designed for Service personnel, however other agency personnel may attend on a space-available basis.

Course Description: Participants are given the minimum tools and practical examples to complete a NRDA, and examine the Oil Pollution Act (OPA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulations. The course will include practical exercises to complete an actual damage assessment.

Objectives: Upon completion of this course, participants will be able to:

- Discuss the history, policies, legislation, and practical applications that guide the Natural Resource Damage Assessment (NRDA) Program.
- Discuss and describe regulations pertinent to conducting a NRDA.
- Understand the effectiveness of preplanning and coordinating with administrative staff, Environmental Contaminant Specialists, trustees, Responsible Parties, environmental groups, and the general public.
- Be effective participants on multidisciplinary NRDA team, including biologist, restoration specialists, managers, economists, attorneys, and contractors.
- Conduct a Natural Resource Damage Assessment using appropriate guidelines/regulations.
- Move the NRDA process towards effective and complete restoration of injured trust resources.

Point of Contact: Jill Parker, Environmental Conservation Branch, Phone: (304) 876-1600 ext. 397; Fax: (304) 725-0664

Course #ESC3119
PESTICIDE EFFECTS ON FISH AND WILDLIFE RESOURCES

Length: 5 days; 36 hours

Audience: Primarily field personnel in the Environmental Contaminants, Law Enforcement, and Refuge programs whose responsibilities include evaluating the legal and biological implications of fish and wildlife exposures to pesticides. Personnel from other Service programs or other agencies who have pesticide-related responsibilities may also be interested in the course. This course will lay the groundwork for more intensive training in pesticides and related topics such as integrated pest management.

Course Description: This course will introduce participants to the fundamentals of toxicology, exposure, and environmental fate of pesticides in aquatic systems. Federal pesticide law and application of wildlife laws as they relate to pesticide-related liability and prosecutions will be covered. Participants will learn principles of evaluating non-target effects, investigating fish and wildlife die-offs, including basic disease concepts, safety factors, and field considerations. Case histories from actual pesticide incidents will be used to highlight the course basics. There will also be hands-on sessions and optional evening programs to reinforce lecture material.

Objectives: Upon completion of the course, participants will be able to:

- Discuss the Department of Interior and Fish and Wildlife Service pest management policies, pertinent statutory responsibilities and authorities.
- Discuss the principles of safe pesticide use.
- Assess pesticide impacts on trust resources.
- Investigate suspected pesticide poisoning incidents.

Point of Contact: Jill Parker, Environmental Conservation Branch, Phone: (304) 876-1600 ext. 397; Fax: (304) 725-0664

Course #ECS3121
INTEGRATING NEPA INTO FISH AND WILDLIFE SERVICE ACTIVITIES (NEPA/INT)

Length: 3 days, 24 hours

Audience: Fish and Wildlife employees; other Federal employees (on a space-available basis) needing such NEPA training to properly complete their responsibilities.

Course Description: The course will be conducted by Washington Office Fish and Wildlife Service (Service) National Environmental Policy Act (NEPA) staff and selected specialists from the Service and the Department of the Interior. NEPA requires the basic components of the Federal planning process be documented to insure that the action's environmental effects are considered through a systematic, interdisciplinary approach. The purpose of the course is to provide Service staff with information and instruction concerning the purpose of NEPA, how NEPA affects the decision-making process involving Federal planning and actions, and how to structure and write required NEPA documentation. A practical exercise on impact assessment will allow class to gain hands-on knowledge on impact assessment procedures.

Objectives: Upon completion of the course, participants will be able to:

- State the purpose, goal, and twin objectives of NEPA
- Integrate the procedural requirements of NEPA with the development of a Federal action plan
- Discuss the methods developing NEPA statements of purpose and need
- Describe when the project is categorically excluded; when to prepare an environmental assessment (EA); and when to prepare an environmental impact statement (EIS)
- Identify alternative means to solve the recognized problem if the identified need can not be satisfied
- Discuss the purpose of public involvement and how to conduct scoping for the NEPA process
- Develop the proposed action and analyze and evaluate the effects of this action and alternatives on the environment
- Organize and develop an outline and write NEPA documents
- Understand the purpose and use of a Finding of No Significant Impact (FONSI) and a Record of Decision (ROD)

Point of Contact: Don Peterson, Div. of Habitat Conservation, Arlington, VA,
Phone: (703) 358-2183

Course #ECS3122
WRITING NEPA ENVIRONMENTAL DOCUMENTS (NEPA/DOC)

Length: 3 days, 24 hours

Audience: Fish and Wildlife Service employees; other Federal employees (on a space-available basis) needing such NEPA training to properly complete their responsibilities.

Course Description: The course will be conducted by Fish and Wildlife Service (Service) Washington NEPA office staff and selected other Service staff members for service employees at the regional and field station level. This course will provide an understanding of NEPA as well as information and instruction on the purpose and procedural requirements towards complying with the Act. Class exercises will give hands-on training in analyzing and evaluating the proposed action and environmental impacts, and how to organize and write the required reporting NEPA document.

Objectives: Upon completion of the course, participants will be able to:

- State the goal, twin objectives, and purpose of the National Environmental Policy Act (NEPA).
- Describe the difference between an environmental impact statement (EIS) and an environmental assessment (EA), and when an action is categorically excluded from NEPA documentation.
- List the criteria for determining when to prepare an EIS, EA, and when the action is categorically excluded
- Conduct scoping properly and for the correct reasons.
- Discuss the procedures for public involvement in the NEPA process
- Develop a general outline for preparing an EA or EIS
- Develop NEPA statements of purpose and need
- Define the proposed action and alternatives
- Evaluate environmental consequences of the proposed action and alternatives
- Discuss the difference between a Finding of No Significance (FONSI) and a Record of Decision (ROD)

Point of Contact: Don Peterson, Div. of Habitat Conservation, Arlington, VA,
Phone: (703) 358-2183

Course #ECS3123
WRITING EFFECTIVE ENVIRONMENTAL REVIEWS (NEPA/ER)

Length: 3 days, 24 hours

Audience: Fish and Wildlife employees; other Federal employees (on a space-available basis) needing such NEPA training to properly complete their responsibilities.

Course description: This specialized training for Service employees will provide information and instruction on purpose and procedural requirements of the National Environmental Policy Act (NEPA) for the review and comment on environmental documents and other related reviews. Class instructions are interactive and will demonstrate how NEPA and other related environmental laws and regulations apply to the review of environmental documents, project plans, and proposed regulations.

A practical environmental document critique exercise will allow class to gain hands-on knowledge of proper review and commenting techniques.

Objectives: Upon completion of the course, participants will be able to:

- State the purpose, goal, and twin objectives of NEPA
- React properly as a representative of the service when special expertise or jurisdiction is involved.
- Discuss the duty of the Service to review and comment on environmental documents, project reviews, and proposed legislation
- Prepare an environmental impact statement
- Prepare an environmental assessment
- Draft statements of purpose and need
- Detail statements of proposed action and alternatives
- Analyze significant environmental issues
- Make comments on environmental issues of concern in proper format, style, and tone
- Discuss other project review requirements, such as section 4(f), ESA, CERCLA, and FWCA
- Deal with cooperating agency agreements
- Review deadlines, extensions of time, and "No comment" reviews
- Identify requirements for referring project to CEQ

Point of Contact: Don Peterson, Div. of Habitat Conservation, Arlington, VA, Phone: (703) 358-2183

Course #ECS3115
ENDANGERED SPECIES ACT—LISTING AND CANDIDATE ASSESSMENT

Length: 5 days; 36 hours

Audience: Service biologists in the Endangered Species Program. Course participants should have current involvement in ESA §4 listing actions or candidate assessment, conservation, and monitoring. The course is designed for Service personnel, but other agency personnel may attend on a space-available basis.

Course Description: This course provides basic information regarding all aspects of petition management, candidate assessment, conservation and monitoring, and listing determination. Case studies and interactive exercises are used to reinforce instruction.

Objectives: Upon completion of the course, participants will be able to:

- Identify the steps necessary for placing a species in one of the categories on the candidate species lists.
- Complete the process for prioritization of candidates for listing.
- Discuss the process necessary to develop conservation agreements for candidate species.
- Explain the process necessary to respond to petitions.
- Complete the process necessary, including the use of the five factor test, to determine if a species should be listed, delisted, or reclassified under §4 of the ESA.
- Identify the Service's obligations and authorities for listing species as threatened or endangered under §4 of the ESA.
- Identify the steps for determining if critical habitat is prudent and determinable, and if so, the steps necessary for proposing and finalizing critical habitat designation.
- Identify how to establish and maintain a complete administrative record of the Service's actions associated with a species' review for listing and/or critical habitat designation.
- Identify and understand the goal, objectives, steps and purpose of NEPA, as it relates to §4 of the ESA.
- Recognize how aspects of FOIA and FACA relate to §4 of the ESA.

Point of Contact: Monica Tomosy, Environmental Conservation Branch, Phone: (304) 876-1600, ext. 402; Fax: (304) 725-0664

Course #ECS3117

ENDANGERED SPECIES ACT—HABITAT CONSERVATION PLANNING

Length: 5 days; 36 hours

Audience: This course is designed for Service biologists responsible for assisting in the development of Habitat Conservation Plans (HCP) under §10(A)(1)(b) of the ESA. The course is designed for Service personnel, however other agency personnel may attend on a space-available basis.

Course Description: The course provides basic details regarding the HCP process including regulatory requirements, roles and responsibilities and issuance criteria. Case studies and interactive exercises are used to reinforce the lecture sessions.

Objectives: Upon completion of the course, participants will be able to:

- Identify the legal authorities that support the Service's development and implementation of HCPs.
- Repeat the major steps involved with processing routine HCP permit applications.
- Identify the 3 categories of HCPs and their relationship with other environmental laws and regulations (e.g. NEPA, CWA).
- Identify the interrelationship between Section 10 and Section 7 of the ESA.
- Identify the roles and responsibilities, to include permit review and finalization process, of the different Service entities, applicant, and other involved parties.
- Conduct pre-application coordination and develop the resulting Section 10(a)(1)(b) incidental take permit with associated issuance criteria.
- Identify the process necessary for developing a minimization/mitigation strategy and alternative analysis with the associated incidental take permit.
- Understand options available to the biologist and applicant for streamlining the HCP process.
- Complete the documentation necessary to deny, amend, review suspend, or revoke Section 10(a)(1)(b) permits.

Point of Contact: Sandy Tucker, Environmental Conservation Branch, Phone: (304) 876-1600, ext. 388; Fax: (304) 725-0664

Course #ECS3116

ENDANGERED SPECIES ACT—CONSULTATION

Length: 5 days; 36 hours

Audience: Service biologists responsible for conducting project review of potential impacts (adverse or beneficial) to proposed, listed, or candidate species under §7 of the ESA. The course is designed for Service personnel, however other agency personnel may attend on a space-available basis.

Course Description: The course provides basic information regarding conducting consultations. The basic components of consultation are addressed, with emphasis on the contents of a biological opinion. Case studies and interactive exercises are used to reinforce lecture sessions.

Objectives: Upon completion of the course, participants will be able to:

- Maintain an administrative record for Section 7 activities and Freedom of Information Act requests.
- List and discuss the subsections of the Section 7 regulations(including technical assistance and species list actions) and describe related requirements and procedures.
- List, describe the parts of, and write a biological opinion.
- Describe and apply the jeopardy/no-jeopardy and adverse modification determination process.
- Discuss Service policy regarding ongoing programmatic and nationwideconsultations and the Section 7(a)(1) process.
- Describe the importance of Section 7 consultation in implementing the Fish and Wildlife Service's mission.

Point of Contact: Sandy Tucker, Environmental Conservation Branch, Phone: (304) 876-1600, ext. 388; Fax: (304) 725-0664

Course #ECS3118
ENDANGERED SPECIES ACT—RECOVERY PLANNING AND IMPLEMENTATION

Length: 5 days; 32 hours

Audience: Primarily field personnel in the Service whose responsibilities include preparation and cooperative implementation of recovery plans.

Course Description: This course is currently under development. A course announcement will be distributed at a later date providing additional content and logistical information.

Point of Contact: Monica Tomosy, Environmental Conservation Branch, Phone: (304) 725-8461 ext. 402; Fax: (304) 728-6772

> *"Security is mostly a superstition. It does not exist in nature, nor do the children of men as a whole experience it. Avoidance of danger is no safer in the long run than outright exposure. Life is either a daring adventure, or nothing."*
> — HELEN KELLER

Course #ECS3112
WETLANDS REGULATORY PROGRAM

Length: 5 days; 36 hours

Audience: Service employees who review and comment on permits issued by the Corps of Engineers under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The course is designed for Service personnel, however, other agency personnel may attend on a space-available basis.

Course Description: Participants will be provided detailed information to facilitate a better understanding of wetland regulations and to enable them to perform permit reviews more effectively. Lecture sessions are mixed with case studies and interactive exercises.

Objectives: Upon completion of this course, the participants will be able to:

- Discuss Service policies and Federal laws that guide the Service's permit review program.
- Identify the types of permits, scope of activities regulated and the geographic jurisdiction of the regulatory programs under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.
- Discuss the Corps of Engineers' Public Interest Review process and describe how compliance with the Environmental Protection Agency's Section 404(b)(1) guidelines is achieved.
- Explain the different roles of the Service, Corps of Engineers, EPA, SCS, NMFS and state agencies in the Federal wetlands regulatory program.
- List and describe the roles of the Service and pertinent Service authorities in the Federal wetlands regulatory program (including agricultural issues).
- List the elements of a Service Fish and Wildlife Coordination Act report and comment letter on permit applications.
- Explain the permit elevation process as detailed in the 1992 Department of Army/Department of Interior 404(q) MOA.
- Apply knowledge of regulations, policies, and differing agency roles to effectively protect wetland resources.

Point of Contact: Jill Parker, Environmental Conservation Branch, Phone: (304) 876-1600 ext. 397; Fax: (304) 725-0664

Computer and Statistical Applications

Course #FIS4105
BIOSTATISTICS

Length: 5 days; 36 hours

Audience: This course is designed as a refresher course for any individual with some familiarity with statistics.

Course Description: The course will cover a variety of introductory subjects in descriptive and inferential statistics. Instruction emphasizes application of statistical tools to commonly encountered problems. Actual projects contributed by participants will be used to illustrate statistical methodologies. The intent of this course is to enable participants to better solve statistical problems. It is not intended as a strict consulting session to solve particular issues.

Objectives: Upon completion of the program, participants will be able to:

- Use basic statistical terminology and concepts.
- Use measures of central tendency.
- Use data description techniques ("exploratory data analyses")
- Identify when to use inferential statistical methods, such as z-tests, t-tests, analysis of variance, Mann-Whitney U, Kruskal-Wallace, correlation, regression, contingency tests, goodness of fit tests, etc.
- Use data transformations properly.
- Apply basic principles of survey, sampling and experimental design
- Mark/recapture analysis
- Discuss statistical procedures for actual projects contributed by participants

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664

Course #FIS4106
ADVANCED BIOSTATISTICS

Length: 5 days; 40 hours

Audience: Any biologist who has at least a moderate background in statistics (courses FIS4102 and FIS4105 or equivalent background serve as suggested prerequisites).

Course Description: This course is currently being developed. A course flyer will be distributed to provide specific content and logistical information..

Point of Contact: Alan Temple, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 370; Fax: (304) 725-0664

"The worst bankrupt is the person who has lost his enthusiasm"

— ANON

Course #FIS4102
EXPERIMENTAL DESIGN—CONTROLLED

Length: 5 days; 40 hours

Audience: Any fisheries or wildlife worker

Course Description: This course provides a framework and discusses principles for conducting an experiment. Various experimental designs are addressed that can be used in situations where true replicates and controls are possible (e.g., in a laboratory or hatchery setting).

Objectives: Upon completion of the course, participants will be able to:

- Plan an experiment (e.g., problem statement and hypothesis development, logistics, analyses to be used)
- Develop experimental design models (e.g., completely randomized, randomized complete blocks, Latin square)
- Carry out experiments.
- Analyze data and report results.
- Apply basic statistical principles (e.g., replication, randomization, experimental errors).

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242, Fax: (304) 725-0664.

Course #FIS4103
EXPERIMENTAL DESIGN—FIELD

Length: 5 days; 40 hours

Audience: Any fisheries or wildlife worker with at least a moderate background in statistics (courses #FIS4102 and #FIS4105 or equivalent background serve as suggested prerequisites).

Course Description: This course provides a framework and discusses design principles for conducting field experiments. Various experimental designs are addressed that can be used in situations where true replicates and controls may not be possible.

Objectives: Upon completion of this course, participants will be able to:

- Plan an experiment (e.g., problem statement and hypothesis development, logistics, analyses to be used).
- Develop a framework for deciding best designs.
- Select a study site.
- Describe sample size considerations.
- Apply statistical procedures.

Point of Contact: Chris Horsch, Branch of Aquatic Resources Training, Phone: (304) 876-1600 ext. 242; Fax: (304) 725-0664

Course #TEC7112
INTRODUCTION TO DESKTOP GIS FOR FIELD BIOLOGISTS

Length: 3 days (24 hours)

Audience: This course is designed for Fish and Wildlife Service field biologists and refuge managers who are interested in applying simple GIS tools and principles to their projects and daily tasks, or are interested in taking advantage of GIS tools and data already available at their field station or refuge. Students should have a minimal familiarity with operating PC software under a Microsoft "Windows" environment using a mouse.

Course Description: This course will cover basic principles and costs of establishing a minimal GIS capability at a field office and the availability of computerized data about land and natural resources, including how to organize, utilize, and analyze GIS data on a desktop computer. Topics covered will include a definition of GIS, cover typing/land classification, geo-referenced data issues, global positioning systems, and training on ArcView software. Training examples will include actual FWS projects.

Objectives: Upon completion of the course the student will:

- Have an understanding of GIS technology and its application to fish and wildlife management
- Be able to operate a desktop GIS using ESRI ArcView software.

Point of Contact: Glenn Gravatt, Technical Training Branch, Phone: (304) 876-1600, ext. 296, Fax: (304) 725-0664

Organizations learn only through individuals who learn.

The Fifth Discipline
Peter M. Senge, p. 139

Course #TEC7119
NATIONAL FWS GEOGRAPHIC INFORMATION SYSTEMS WORKSHOP

Length: 5 days (40 hours)

Audience: Service employees involved in the implementation of GIS technology to Agency applications or planning to implement GIS applications in the near future.

Course Description: The workshop is designed to provide continuing education, advanced training, and professional networking to employees and managers needing to efficiently apply GIS technologies in a cost-effective manner to agency applications. The workshop focuses on reducing duplication of effort, standardizing methods and systems, standardizing data and classifications, increasing data sharing opportunities, and receiving training on the latest GIS applications, techniques, regulations, and Agency policies. Specialized training and seminars are incorporated into the workshop. Users investigating GIS will be introduced to practical applications and experienced users will have the opportunity to share uses of the technology.

Topics include sources for spatial data, spatial data collection and global positioning technology, selecting and evaluating GIS software packages, GIS database design, standards and policies for GIS metadata, common problems and solutions, how Service offices apply GIS technology, GIS and ecosystem management, partnerships in GIS applications, system demonstrations, and new technologies.

Objectives: To provide continued education and professional development to Fish and Wildlife Service employees and specialists responsible for implementing GIS technology applications.

Point of Contact: Karen Kerlin, Washington Office Division of Information Resources Management, Phone: (703) 358-1729; Fax: (703) 358-2251

Course #TEC7121

INTRODUCTION TO EPPL7 GIS SOFTWARE ON A MICROCOMPUTER

Length: 3 full days and 2 half days (32 hours)

Audience: Biologists learning to using the geographic information system (GIS) program EPPL7. Those unaccustomed to using DOS commands should review the commands MKDIR, CD, COPY, and the text editor EDIT (DOS 5 or greater) before attending the class.

Course Description: This course was designed to familiarize novice EPPL7 users with the program's Digitize, EPPL, Display and Dotplot modules. Originally developed for Mississippi River biologists, the training exercises and documentation were designed to answer many of the questions commonly asked by individuals learning to use the program. Exercises and course materials were chosen to document processing commands and techniques used during most GIS analysis projects. Topics covered in this course include digitizing, rasterizing and editing files, EPPL basics, display program basics, introduction to file manipulation, introduction to Dotplot, and the custom interface program.

Objectives: Upon completion of the course, students will be proficient in the basic use and application of EPPL7 GIS software.

Point of Contact: Carol Lowenberg, (608) 783-7550, ext. 18, Environmental Management Technical Center, 575 Lester Avenue, Onalaska, Wisconsin 54650 (cc:Mail address: LowenbergC, Internet address: clowenberg@emtc.nbs.gov)

"What we must decide is how we are valuable rather than how valuable we are"
— ANON

Course #TEC7122

ADVANCED EPPL7: UTILIZING EPPL7'S MODELING COMMANDS

Length: 3 days (24 hours)

Audience: Individuals who have had previous experience using the geographic information system (GIS) program EPPL7 and would like to learn more about EPPL7's modeling capabilities. The training exercises were written with U.S. Fish and Wildlife Service and National Biological Service biologists in mind. The course: Introduction to EPPL7 GIS Software on a Microcomputer, is a prerequisite. Participants are to review the EPPL7 commands BORDER, EVALUATE, HEADER, MOSAIC, RASTERIZE, RECLASS, RESCALE, VGA, WINDOW; the DOS commands MKDIR, CD, COPY; and the text editor EDIT before attending. A working knowledge of screen digitizing, the DISPLAY module, and printing a map using DOTPLOT as taught in the introductory course, is assumed.

Course Description: This course is an expansion of the Introduction to File Manipulation section contained in the course: Introduction to EPPL7 GIS Software on a Microcomputer. Most of the available EPPL7 modeling commands have been included in the coursework. Topics covered in this advanced course include enlarging coverages, subsetting coverages, combining multiple coverages, buffering, neighborhood analysis, analyzing elevation data, and habitat modeling.

Objectives: Upon completion of the course, students will be proficient in the advanced application and use of EPPL7 GIS software for modeling.

Point of Contact: Carol Lowenberg, (608) 783-7550, ext. 18, Environmental Management Technical Center, 575 Lester Avenue, Onalaska, Wisconsin 54650 (cc:Mail address: LowenbergC, Internet address: clowenberg@emtc.nbs.gov)

Course #TEC7125
INTRODUCTION TO ARC/INFO ON A UNIX PLATFORM

Length: 3 days (24 hours)

Audience: Individuals interested in learning basic, mid-sized geographic information system concepts and their application to research and natural resource management. The student should have a computer background with some general experience in a Unix environment (experience with Unix's graphic user interface "OpenWindows" is recommended).

Course Description: The course will provide an introduction to geographic information systems (GIS) using ARC/INFO software running on a Unix platform. An introduction to the ARC/INFO vector data model and basic GIS analysis techniques is included. Overall topics covered will include Unix operating system and Windows Manager basics, introduction to GIS, ARC/INFO organization and commands, data entry overview, querying the spatial database, map composition, and spatial analysis and modeling. The course will include hands-on problem solving exercises.

Objectives: Upon completion of the course, the student will be able to utilize the basic features of ARC/INFO GIS software on a Unix platform.

Point of Contact: Environmental Management Technical Center Courses: Douglas A. Olsen, (608) 783-7550 ext. 17, 575 Lester Avenue, Onalaska, Wisconsin 54650; Southern Science Center Courses: Marcia McNiff, (318) 266-8572, 700 Cajun Dome Boulevard, Lafayette, Louisiana, 70506-3152

Course #TEC7102
COMPUTER APPLICATIONS IN FISH & WILDLIFE MANAGEMENT

Length: 3 Days (24 hrs)

Audience: This course is designed for Fish and Wildlife Service field personnel responsible for applying computers to field station applications, including selecting software, conducting procurements, supporting multiple workstations, and accessing outside information sources. Applicants should possess basic skills and experience in using personal computers, including some prior participation in installing a hardware or software item.

Course Description: This course is designed to provide an understanding of the current applications of computer technology to fish and wildlife management—including terminology, costs, benefits, and problems. Skills needed to support a group of computers at a fish and wildlife field office will be presented. Topics will include an overview of personal computer hardware, software, and applications (including geographic information systems and GPS devices), sources for fish and wildlife information, internet access, procurement of computer technology, and future trends.

Objectives: Upon completion of the course, students will be able to provide basic support and procurement assistance for computer applications at a Fish and Wildlife Service field station.

Point of Contact: Glenn Gravatt, Technical Training Branch, Phone: (304) 876-1600, ext. 296, Fax: (304) 725-0664

To achieve distinction…requires not slight of hand by geniuses but the commitment of excellence. Equality, service, make it better innovation by everyone. In short, people are the unmistakable case.

PETERS AND AUSTIN
A PASSION FOR EXCELLENCE
RANDOM HOUSE: 1985, PG 201

Course #TEC7138
COMPUTER SYSTEM DEVELOPMENT

Length: 2.5 days (20 hours)

Audience: Computer specialists who develop databases and other systems for Service use.

Course Description: Participants will learn how to take advantage of the Service's recommended technical architecture in their system development efforts, including the Service Wide Area Network (SWAN), model configurations, security technology, and data standards. Feedback from the students will be used to update the Service's technical architecture recommendations. Topics include system development history in Service; the focus on LAN's, SWAN, and Internet for connectivity; remote access options (including the SWAN modem pool and FTP/Telnet); network encryption/firewall protection vs. security on host computers; how much security is enough for your system/data; how to avoid duplicate data entry by extracting data from existing systems; defining cross-Program data standards; and, using new packages and procedures vs. the extra cost of end user training and support.

Objectives: After this training, participants will:

- Know how to comply with Service standards
- Make their individual systems accessible to remote locations through the Internet or SWAN
- Share data with other organizations (including partners outside the Service).

Point of Contact: Larry Pullen, Division of Information Resources Management, Washington Office, Phone: (703) 358-1729 or PullenL on FWS-Mail.

Course #TEC7152
INTRODUCTION TO INTERNET FOR FIELD STATIONS

Length: 3 days (24 hours)

Audience: This course is designed for Fish and Wildlife Service refuge and field station personnel who are interested in understanding and applying Internet technology for natural resources management applications. Students should have a basic familiarity with microcomputer hardware and software, including utilizing software under a "Windows" environment with a mouse.

Course Description: This course will cover basic principles about the Internet including its definition, structure, capabilities, and features. Students will learn how to install software to access the Internet and how to use various Internet functions such as gophers, file transfer sites, world wide web, and user groups for natural resources applications. Each session will include actual class time on the Internet. Students completing the course will receive a copy of Internet access software to take back to their field stations.

Objectives: Upon completion of the class, students will have the skills to install, apply, and support Internet access for use at their own field station.

Point of Contact: Glenn Gravatt, Technical Training Branch, Phone: (304) 876-1600, ext. 296, Fax: (304) 725-0664

> ***"The length of your education is less important than its breadth, and the length of your life is less important than its depth"***
>
> — ANON

Course #TEC7158
FWS-ELECTRONIC-MAIL POST OFFICE ADMINISTRATORS' WORKSHOP

Length: 2 days (16 hours)

Audience: Computer Specialists who are (or will be) FWS Post Office Administrators.

Course Description: Provides technical skills and information on managing FWS-Mail Post Offices to Post Office Administrators. Includes latest software releases, changes in FWS-Mail operation and problem resolution.

Topics included are an introduction to the Service Wide Area Network and FWS-Mail, the cc:Mail router, Automatic Directory Exchange and propagation, Post Office Administrator responsibilities, administrative policies, standard operating procedures and problem resolution, bulletin boards, X.400/SMTP gateways, and cc:Mail Remote/cc:Mobile software.

Objectives: Upon completion of the course, participants will be trained to support and maintain an FWS cc:Mail Post Office.

Point of Contact: Cheryl Morris, Division of Information Resources Management National Communications Center, Denver, CO,
Phone: (303) 275-2400

Course #TEC7159
NETWORK MANAGERS WORKSHOP

Length: 2 days (16 hours)

Audience: Service Wide Area Network (SWAN) node managers and Local Area Network (LAN) managers.

Course Description: Provides technical skills and information on managing SWAN nodes and Service LANs. Includes problem resolution procedures, troubleshooting techniques, and Service connectivity strategies. Topics include SWAN node equipment, node capabilities, configuration/routing, administrative policies, standard operating procedures/problem resolution, standards, and requirements; and typical service LAN configurations and troubleshooting techniques for LANs.

Objectives: Upon completion of the course, network managers will be trained to operate their LAN nodes consistent with the Service's overall wide area network strategy and procedures.

Point of Contact: Cheryl Morris, Division of Information Resources Management National Communications Center, Denver, CO,
Phone: (303) 275-2400

> ***"A man is ethical only when life, as such, is sacred to him, that of plants and animals as that of his fellow men, and when he devotes himself helpfully to all that is in need of help"***
>
> — ANON

Education and Outreach

Course #OUT6108
MEDIA RELATIONS

Length: 3 days; 24 hours

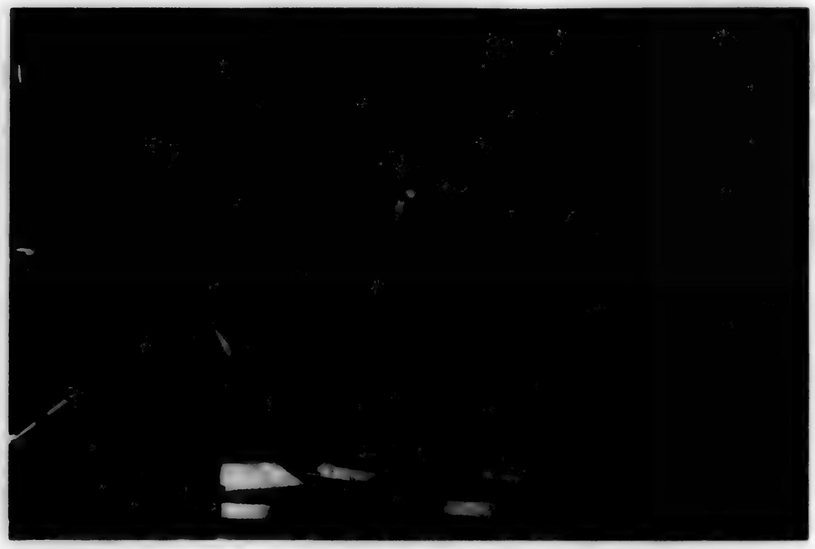
Audience: Individuals who want to improve their working relationship with the media.

Course Description: The focus of this course is on being proactive rather than reactive, and learning how to make the media work for you. Participants will have the opportunity to do videotaped interviews, write a news release, and role play a crisis situation while working with actual media representatives. Topics include: overview of the information industry, establishing good media relations, the interview process, press conferences, writing news releases, FWS policies, and crisis communication.

Objectives: Upon completion of the course participants will be able to:

- Explain the importance of establishing and maintaining a good relationship with the media;
- Determine the appropriate media to use for disseminating various types of information;
- Demonstrate how to interact with media representatives in various formats;
- Write a lead paragraph for a news release;
- Describe how to manage information in a crisis or special situation; and
- Outline a plan to deal with the dissemination of information during crises or special situations.

Point of Contact: Supervision & Management Branch, Phone: (304) 876-1600 ext. 358; Fax: (304) 725-0664



Course #OUT5110

PUBLIC OUTREACH, ADVOCACY AND EDUCATION: OVERVIEW AND PLANNING

Length: 3 days, 24 hours

Audience: Project leaders, biologists, employees involved with public affairs, partnerships, education, outreach and outdoor recreation planners. Any Service employees interested in gaining a overview of education and outreach and a foundation for other education and outreach courses.

Course Description: This course provides a foundation and philosophy of the role of education and outreach in the U.S. Fish and Wildlife Service and will help Service employees plan and evaluate education programs for their site. Participants will learn about education and outreach strategies and how these strategies can assist the ecosystem approach to management in the Service. The course will assist participants to identify further outreach training needs for their staff or themselves. Recommended as a precursor to other education and outreach course offerings and for any FWS employees serving as instructors on topics related to education and outreach.

Course topics will include: successful case studies highlighting education and outreach applications to ecosystem management issues; long term and short term benefits of environmental education; marketing natural resources; human dimensions and responsive management; education and outreach strategies currently in use in the Service; program planning and evaluation processes; and the participant's role in education and outreach.

Objectives: Upon completion of this program, participants will be able to:

- Describe three ways education and outreach can help address ecosystem management issues and meet resource objectives.
- List the key elements of a successful education program.
- Identify at least six outreach and education strategies that can help address resource management issues.
- Use an education and outreach program planning process.
- Define their role in education and outreach activities.

Point of Contact: Janet Ady, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

> ***"Men are men before they are lawyers, or physicians, or merchants, or manufacturers; and if you make them capable and sensible men, they will make themselves capable and sensible lawyers or physicians."***
>
> — JOHN STUART MILL

Course #OUT5123
BUILDING COMMUNITY SUPPORT

Length: 5 days, 36 hours

Audience: Project leaders and biologists, as well as public involvement specialists and educators who wish to obtain community support among interest groups at the local, regional, or national level.

Course Description: Many biologists agree that the key to solving resource problems is not only obtaining more biological information, but also in helping people become involved in the ecosystem approach to resource management. This course will provide sociological, marketing and citizen participation knowledge and skills needed to build the relationships and trust within communities necessary to accomplishing the Service mission.

This course will provide strategies, based upon pertinent social science information, in relation to wildlife resources and habitat for: building community participation and assistance in resource management programs on public and private lands; prevention of conflicts among resource groups; resolution of conflicts among various interest groups; changing human attitudes and behavior in relation to the wildlife resource and its habitat.

Objectives: Upon completion of the program, participants will be able to:

- List three techniques for identifying opinion leaders in the community.
- Identify types of interest groups and/or individuals affected by policy or programs.
- Determine information sources and flow in the community.
- Select appropriate public involvement techniques.
- Asses the implications of social science data for developing a community support strategy.
- Identify and segment target audiences for their site.
- Design messages for "target" groups.
- Use one-on-one persuasion skills.
- Know techniques for building networks, partnerships and alliances.
- Develop a communication support strategy.

Point of Contact: Janet Ady, (703) 358-2504,
National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive,
Arlington, Virginia 22203

Course #OUT5124
EVALUATION STRATEGIES THAT WORK!

Length: 3 days, 20 hours

Audience: Service employees involved in designing and implementing education and outreach programs.

Course Description: Program evaluation to ensure that outcomes are the desired ones is a key part of reinvented government. Effective evaluation is integrated with the planning process and occurs both during program implementation (formative) and after (summative). Service employees involved in education and outreach program planning and implementation need specific skills and techniques for evaluating the effectiveness of their programs. This course will explore an array of evaluation strategies and their appropriate application.

Objectives: Upon completion of the program, participants will be able to:

- Name three reasons for evaluating education and outreach programs.
- Describe five methods of evaluating components of education and outreach programs.
- Compare qualitative and quantitative methods for program evaluation.
- Explain uses and techniques for evaluation tools such as surveys, interviews, focus groups and observations.
- Describe alternative assessment techniques.
- Apply evaluation results to improve their education and outreach program.
- Use an evaluation model to conduct formative and summative evaluations of their education and outreach programs.
- Discuss case studies of evaluation plans and findings.

Point of Contact: Janet Ady, (703) 358-2504,
National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive,
Arlington, Virginia 22203

Course #OUT5127
SIGNS AND WAYSIDE EXHIBITS

Length: 4 days, 28 hours

Audience: Outdoor recreation planners, interpretive specialists, public use specialists, landscape architects, maintenance personnel, any Service employee with responsibility for design and production of interpretive signs and wayside exhibits.

Course Description: Interpretive signs and wayside exhibits can be cost effective methods of communicating your story, management objective, and site regulations while projecting a positive image of your site and agency. Designed correctly, these tools can spark a visitor's interest and encourage compliance with site rules.

Participants will learn how to design a visually appealing sign face, write dynamic interpretive messages, select appropriate fabrication materials, identify considerations of sign placement, and estimate project costs. Participants will work on individual projects by brainstorming and working in small groups. Plan to bring a current sign project or idea on which to expand.

Objectives: Upon completion of the program, participants will be able to:

- Describe five principles of interpretive sign and wayside exhibit planning.
- Discuss pros and cons of signs and waysides as interpretive tools.
- Design a thematic plan for interpretive sign and wayside exhibit development.
- Identify the major components of sign faces and how to use them to capture visitor interest and attention.
- Write tight, active, interpretive messages that incorporate headings, subheadings, captions and information sequencing.
- Select the best sign face materials and supports considering site and budget limitations.
- Explain how to meet accessibility standards for sign design.
- Estimate costs of sign design and fabrication.
- Manage quality control in design and fabrication.
- Work effectively with sign contractors through the design and fabrication process.

Point of Contact: Gary Stolz, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

> ***As organizations become more sophisticated... the most essential asset in [the] quest for peak organizational performance is human competence.***
>
> RAYNOLD A. SVENSON
> MONICA J. RINDERER
> THE TRACING AND DEVELOPMENT STRATEGIES PLAN
> WORKBOOK, P. 1

Course #OUT5128
WORKING WITH VOLUNTEERS & YOUTH GROUPS

Length: 3 days, 24 hours

Audience: Refuge/Hatchery Managers, Refuge Operations Specialists, Outdoor Recreation Planners, Park Rangers, any Service employee with responsibility of working with volunteers and/or youth service group programs.

Course Description: This course will discuss the value of developing and maintaining strong programs to work with volunteers and youth service groups, and how these partnership programs are often a critical supplement to meet management objectives of the Service. Benefits of and sensitive issues in working with volunteers will be discussed, as well as examples of resident and non-resident volunteer programs throughout the Service.

Objectives: Upon completion of the program, participants will be able to:

- Identify appropriate applications of a volunteer program at their site.
- Describe strategies for recruiting and maintaining volunteer staff.
- Determine appropriate methods of training and supervising volunteer staff.
- Suggest ways of integrating volunteers with paid staff.
- Discuss incentives and benefits for volunteers.
- Outline techniques that provide involvement, build morale and promote team building.
- List examples of group service projects.
- Discuss the use of internships to meet the objectives of Service programs.

Point of Contact: Gary Stolz, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

Course #OUT5126
ENVIRONMENTAL EDUCATION ONSITE OR OFFSITE

Length: 5 days, 32 hours

Audience: Employees who will be working with students, teachers, and youth groups and their leaders, both on and off Service lands

Course Description: Working with formal and non-formal eduction groups is an effective strategy for addressing resource management issues and encouraging environmentally responsible behavior by young people. This course will introduce Service employees to general education practices and encourage them to work with local schools in program development.

Course topics will include: learning styles of children and adults, model environmental education programs in the Service, working with the educational system and youth groups, project planning and evaluation, instructional materials, project development, teacher training, national, regional and field level environmental education resources, complete project design.

Objectives: Upon completion of the program, participants will be able to:

- Address curriculum design and ways to design education programs based on school curricula.
- Identify their role in working with the education community.
- Adapt activities from environmental education project or refine an existing one for use at an on-site (Service land) or off-site (e.g. schools, youth clubs, etc.), in a formal or nonformal situation to meet the needs of the Service and the educator.
- Implement their environmental education project.
- Evaluate the success of the project.

Point of contact: Britt Slattery, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

Course #OUT5130

DEVELOPING TEACHER TRAINING

Length: 5 days, 32 hours

Audience: Any Service employee with responsibility for planning and conducting teacher workshops.

Course Description: This course will present the essential components of working with schools, specifically: conducting teacher training, and implementing education programs through school systems. This course will be offered in collaboration with the National Consortium for Environmental Education and Training, an effort of the Environmental Protection Agency's Office of Environmental Education.

Course topics include: agenda and action planning, coordinating, conducting, and evaluating teacher workshops and credit courses; working with school faculty to integrate environmental education into the curriculum; facilitation skills; approaches to environmental issues; and. developing administrative support.

The course culminates with participants applying their skill at an actual teacher workshop! Upon return to their duty station, participants are also expected to plan and conduct a workshop for teachers within one year.

Objectives: Upon completion of this course, participants will be able to:

- Design, plan, implement, and evaluate a teacher training workshop which addresses specific issues and topics relevant to their site or program.
- Assess local teacher training needs and devise a plan to meet them.
- Assist teachers in integrating environmental education into their curriculum based on state or school system guidelines.
- Present activities to teachers that will assist them with developing environmental concepts, building student's skills, and clarifying values in the classroom.

Point of contact: Britt Slattery, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

Course #OUT5132

EDUCATION PROGRAMS FOR YOUTH: AFTER SCHOOL, WEEKENDS AND SUMMERS

Length: 3 days, 24 hours

Audience: Service employees who offer camp programs or other informal education programs for youth.

Course Description: Participants will design comprehensive ecosystem/ wildlife study programs for youth in non-formal settings such as wildlife refuges, outdoor camps and after-school/weekend/ summer programs. Emphasis will be on learning about available teaching materials, refining teaching techniques and designing complete study units and developing programs. This course will be offered in partnership with the National Wildlife Federation's NatureQuest program, which provides camps and youth programs with a specialized environmental awareness program certification and accreditation. This course will focus on designing and implementing complete programs on wildlife or ecosystem related topics.

Objectives: Upon completion of the program, participants will be able to:

- Outline the steps in planning and designing an outdoor education program.
- Explain the process of group building and the skills needed to facilitate group activities.
- List ideas for creating good staff communication.
- Describe techniques for developing leadership.
- Discuss selected environmental education materials.
- Plan a unit for an outdoor education program.
- Conduct an outdoor education activity with students.
- Explain the importance of, and provide suggestions for, stewardship projects for camp and community.

Point of Contact: Janet Ady, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

Course #OUT6111

MAKING SITES AND PROGRAMS ACCESSIBLE: UNDERSTANDING CURRENT LAWS AND RESPONSIBILITIES

Length: 5 days, 32 hours

Audience: Any employee with responsibilities for overall compliance with accessibility mandates.

Course Description: Federal agencies are required by law to make public facilities and programs accessible to all. This is a comprehensive course covering all aspects of accessibility. It includes program as well as physical accessibility. A combination of lecture and hands-on exercises will provide the trainee with the tools and skills to assist management in full implementation of barrier-free programs and facilities.

Objectives: Upon completion of the program, participants will be able to:

- Discuss the basis accessibility mandates with regard to attitudes and terminology.
- Explain the needs of persons with mobility, visual, mental and hearing impairments who interact with federal facilities and programs.
- Discuss the implementation and enforcement of the laws related to accessibility.
- Identify UFAS and ADAAG accessibility standards.
- Discuss the factors involved in retro-fitting for accessibility.
- Discuss accessibility needs related to programs; trails and beaches; and historic sites.
- Conduct an evaluation of programs and/or sites and develop a plan for providing accessibility.

Point of Contact: Janet Ady, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

"Actions spring not from thought, but from a readiness for responsibility"
— ANON

Course #OUT6124

PARTNERSHIPS: AN OVERVIEW

Length: 3 days, 20 hours

Audience: Any Service employee currently involved in partnerships, anticipating the need for partnerships or interested in learning more about appropriate partnership opportunities.

Course Description: This course will focus on forming and managing partnerships between the Service and other entities: government agencies, conservation groups, businesses, corporations, land owners, and others, to more effectively accomplish its mission.

Partnerships are voluntary collaborations among entities working toward common, shared objectives. Note that this usage of partnerships excludes business/legal partnerships.

Topics covered in the course will include: Case studies of successful partnerships; identifying partnerships; formation of partnerships; mechanisms for collaboration; fund raising issues; managing a partnership; and evaluating success.

Objectives: Upon completion of the program, participants will be able to:

- Describe how partnerships can help accomplish ecosystem management objectives.
- Identify projects appropriate for partnership efforts.
- Define Service limits in discussion with potential partners.
- Discuss fund raising issues related to partnerships.
- List criteria for evaluating the success of a partnership.
- Explain how to manage a partnership.

Point of Contact: Janet Ady, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

Course #OUT6128
COOPERATING ASSOCIATIONS

Length: 3 days, 24 hours

Audience: FWS cooperating association coordinators, project leaders, cooperating association staff and board members, or Service personnel anticipating or considering the development of a cooperating association within the next two years.

Course Description: This course is designed for individuals interested in creating a Cooperating Association at their site, or for those who play a major role in facilitating an existing partnership between the FWS and a cooperating association.

Objectives: Upon completion of the course, participants will be able to:

- Outline a process for starting a new cooperating association.
- Describe two types of volunteer organizations.
- Compare three types of fund raising and discuss advantages and disadvantages of each.
- Perform simple bookkeeping procedures.
- Discern appropriate public outreach strategies for their cooperating association.
- Select cooperating association projects which meet established needs.
- Cite Service policy related to cooperating association.
- Work effectively with a cooperating association board.
- Manage a cooperating association sales outlet.

Point of Contact: Gary Stolz, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

Course #OUT5111, OUT5112 and OUT5113
EDUCATION AND OUTREACH SEMINARS

Length: Varies by seminar

Course Description: These seminars are currently under development. A course announcement will be distributed at a later date providing additional content and logistical information for each seminar.

Proposed FY '96 seminars are:

OUT5111	Developing Educational Kits
OUT5112	Creating Community Wildlife Habitat
OUT5113	Endangered Species and Ecosystem Management

Point of Contact: Janet Ady, (703) 358-2504, National Education and Training Center, Arlington Office, 304 WEBB Bldg., 4040 N. Fairfax Drive, Arlington, Virginia 22203

Course #EXC5106
INTERPERSONAL COMMUNICATIONS

Length: 3 days; 24 hours

Audience: This course is designed for anyone who wishes to enhance their communication skills and interactions with peers, subordinates, supervisors, the public, other agencies, etc.

Course Description: Communication is the backbone of any organization and communication skills are critical to your success. This course provides a foundation in communication and interpersonal skills. Participants will learn how and why people communicate as they do, and how and why you communicate as you do. As a result, participants will be able to strengthen interpersonal relationships and communication.

Objectives: Upon completion of the course, participants will be able to:

- Describe their interpersonal style and evaluate how their style affects their work methods and interactions with others.
- Explain the other interpersonal styles and explain why other styles are important.
- Describe verbal and non-verbal communication.
- Determine ways to eliminate barriers to effective communication.
- Apply active listening techniques.
- Provide constructive feedback.
- Apply assertive communication techniques.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Nothing is quite so annoying as to have someone go right on talking when you are interrupting.

Course #EXC5109
EMPLOYEE DEVELOPMENT SEMINARS

Length: 1 day; 8 hours

Audience: All employees.

Course Description: The following one day seminars can be used individually or combined together to provide a longer training session. They can be added on to meetings such as Administration Workshops or Project Leader Meetings to provide topical training. To arrange a seminar for your office/station/meeting, please contact the Employee Excellence Branch at the phone number listed below.

The following seminars are available upon request:

- Providing Quality Customer Service
- Dealing Effectively with Stress
- Taking Control with Time Management
- 7 Habits of Highly Effective People
- Winning Telephone Skills
- Do You Hear What I Hear: Listening Skills
- Charting Your Own Course—Career Planning for the '90s
- Understanding and Working Through Conflict
- Tapping into Your Creativity
- Retirement and Financial Planning
- Making Molehills out of Paperwork Mountains—Getting the Most Out of What You Read
- Effective English Workshop—Grammar and Usage

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Course #EXC5104
CONDUCTING EFFECTIVE MEETINGS

Length: 1 day; 8 hours

Audience: This course is designed for anyone who plans and/or conducts meetings and is interested in improving the quality and productivity of their meetings.

Course Description: Inefficient meetings are not only frustrating to both the attendees and the person conducting the meeting, but they are a significant waste of valuable resources. This course is designed to provide participants with the skills to plan and conduct meetings that will accomplish established objectives.

Objectives: Upon completion of this course, participants will be able to:

- Describe the function, purpose and characteristics of effective meetings.
- Determine when a meeting is the appropriate method for conducting business.
- Use a checklist to identify areas of their meetings that need improvement.
- Describe the various roles of meeting participants.
- Apply the five stages of effective meetings (plan; inform; prepare; structure and control; and summarize) to prepare for and conduct effective meetings.
- Develop agendas using the planning process by identifying priorities, times, topics, objectives, and preparation.
- Apply techniques for handling effective interaction with meeting participants.
- Apply methods for summarizing decisions and recording meeting minutes.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

"There is more to life than increasing its speed"
— ANON

Course #EXC5122
SKILLS FOR EFFECTIVE MEETING FACILITATORS

Length: 4 days; 32 hours

Audience: This course is designed for employees who are currently facilitating meetings or will be facilitating meetings.

Course Description: Increasingly, the Service is using facilitators to help maximize the effectiveness of meetings. This course provides knowledges and skills to facilitate your own meetings and/or other's meetings.

Objectives: Upon completion of this course, participants will be able to:

- Determine when a meeting should be facilitated.
- Describe the roles of the Facilitator and Recorder.
- Plan meetings and develop agendas.
- Establish ground rules.
- Apply various decision making and collaborative problem solving methods.
- Apply active listening and feedback skills.
- Apply intervention techniques for difficult meeting situations and for dealing with difficult meeting participants.
- Develop action plans.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Course #EXC5105
WRITING FOR RESULTS

Length: 2 days; 16 hours

Audience: This course is designed for all employees who want to improve their writing by producing documents that effectively communicate ideas to their readers.

Course Description: Participants will learn writing techniques that will allow them to create documents that are easy to read and understand, transfer knowledge with clarity, facilitate correct and timely decisions, and specify and encourage action.

This course incorporates Fish and Wildlife Service writing examples. Participants will learn to critique writing by reviewing their own samples, identifying common problems and applying the learned techniques to write in a clear and concise manner.

Objectives: Upon completion of this course, participants will be able to:

- Design documents that include informative subject lines and headings, clear purpose and accessible information.
- Create documents using the writing process—planning, brainstorming, organizing, drafting and revising.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Nothing will ever be attempted if all possible objections must be overcome first.

Course #EXC5115
TECHNICAL WRITING

Length: 3 days; 24 hours

Audience: This course is designed for technical professionals who are responsible for writing, reviewing and/or editing complex technical documents.

Course Description: Participants learn how to present technical material in a clear, concise and straightforward manner. Participants will learn how to develop technical documents that the non-technical reader can understand, thereby increasing the effectiveness of their writing.

Objectives: Upon completion of this course, participants will be able to:

- Assess the reader's needs through an audience analysis.
- Communicate technical information to a non-technical reader.
- Discuss the purpose, audience and format considerations for technical documents.
- Apply a process to plan, draft and edit technical documents.
- Organize technical data.
- Use charts and graphs to effectively communicate technical data.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Course #EXC5102
NEGOTIATION STRATEGIES AND TECHNIQUES

Length: 2 days; 16 hours

Audience: This course is designed to provide skills for any employee who negotiates on a recurring basis.

Course Description: The course focuses on the application of a win-win, interests-based, negotiating process that results in favorable agreements for all parties involved. In this interactive course, participants have ample opportunity to practice the techniques that are presented.

Objectives: Upon completion of this course, participants will be able to:

- Assess their individual negotiation style and explain what motivates people to use different styles.
- Explain the difference between interests and positions in a negotiation.
- Apply negotiation techniques to a variety of exercises and negotiation sessions.
- Apply techniques to deal with difficult people during negotiations.
- Apply an interest-based negotiation approach to construct optimal agreements that satisfy the interests of both parties.

Note: See course EXC5103 "Complex Environmental Negotiations," page 51, for an advanced course on negotiations.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

The only exercise some people get is jumping to conclusions.

Course #EXC5103
COMPLEX ENVIRONMENTAL NEGOTIATIONS

Length: 3 days; 24 hours

Audience: This course is designed to enhance the negotiation skills of employees currently responsible for multi-party agreements. Participants attending this course should have:

1) Some experience in multi-party negotiations, *and*
2) previous formal training *or* have read "Getting to Yes" by Roger Fisher and William Ury.

Course Description: This is an advanced level negotiation strategies course that focuses on resolving multi-party environmental disputes. Participants develop and practice skills in analyzing complex multi-party negotiations. They learn strategies for moving the process from confrontation to joint problem solving resulting in mutually acceptable outcomes.

Objectives: Upon completion of this course, participants will be able to:

- Explain the nature of conflict and consequences of cooperative and competitive strategies.
- Plan strategies prior to the negotiation.
- Apply strategies for overcoming barriers and breaking an impasse.
- Deal with imbalances of power.
- Apply strategies for managing and resolving conflict.
- Raise conflict productively to promote understanding of issues.
- Apply skills to current multi-party negotiation cases.
- Analyze complex multi-party negotiations and develop strategies for moving the process from confrontation to joint problem solving.

Note: See course EXC5102 "Negotiation Strategies and Techniques" for an introductory course on negotiations.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Course #EXC5110
NATURAL RESOURCE ADVOCACY

Length: 2.5 days; 20 hours

Audience: This course is designed primarily for managers, supervisors and other personnel who have a significant role in the outreach activities within their program area or field station.

Course Description: This course focuses on planning an effective marketing approach to support resource management activities. Participants will learn the principles of marketing and will apply, through case study, a strategic process to develop a marketing plan.

Objectives: Upon completion of this course, participants will be able to:

- Explain basic marketing principles.
- Describe the advantages of marketing as a natural resource management tool.
- Conduct the steps for a situation assessment (external/internal) and a stakeholder identification.
- Develop marketing strategies.
- Develop a natural resource marketing plan.

Note: See course #OUT5110 "Public Outreach, Advocacy and Education: Overview and Planning", page 40, for an introductory course on outreach and education.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

We cannot discover new oceans unless we have the courage to lose sight of the shore.

Course #EXC5120
PROFESSIONAL PRESENTATIONS

Length: 2½ days; 20 hours

Audience: This course is designed for all employees who currently make presentations and wish to improve their presentation skills and for employees who will be making presentations in the future and have limited experience.

Course Description: Clear oral communication is vital to the success of any organization. High quality presentation skills can help ensure success for both the presenter and the Agency.

Participants will learn how to prepare and confidently deliver a quality presentation that will get results. Participants give actual presentations and receive constructive feedback from the instructor. In addition, participants receive a videotape of their presentations to help them analyze and improve their individual presentation skills.

Objectives: Upon completion of this course, participants will be able to:

- Systematically plan a presentation by:
  - determining the purpose
  - the audience and situation
  - brainstorming content ideas
  - selecting and organizing main points
  - developing points using the presentation process
  - preparing an introduction and a conclusion
- Use various methods for managing the nervousness associated with presenting.
- Design and use visual aids to accompany the presentation.
- Answer presentation questions in a concise, organized and diplomatic way.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

A sure fire formula for making a speech: have a good beginning and a good ending—and keep them as close together as possible.

Course #EXC5117
UNDERSTANDING AND DEALING WITH CHANGE

Length: 1 day; 8 hours

Audience: This course is designed for employees* who are experiencing change in their work environment.

Course Description: This course explores change and how people react to change. Participants will examine change occurring within the Fish and Wildlife Service and will learn strategies for effectively dealing with change.

Objectives: Upon completion of this course, participants will be able to:

- Describe the change cycle.
- Identify at what level they are dealing with the changes which are affecting them.
- Identify the barriers that inhibit their progression through the change cycle.
- Develop strategies to deal with the barriers that are inhibiting their progression through the change cycle.
- Develop strategies to cope with stress during change.

***Note:** "Taking Charge of Change" (SUP6117), page 62, is the companion course for supervisors and managers.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Course #EXC5108
MANAGING PERSONAL GROWTH

Length: 2 days; 16 hours (Three hours of pre-course work on the part of the participant and his/her supervisor.)

Audience: This course is designed for employees at all levels. The course offers participants the ability to access critical skills in their current position, identify areas for improvement, and implement a planned discussion with their supervisor concerning career development.

Course Description: Managing Personal Growth (MPG) assists participants to become more effective and more satisfied in their current job by taking responsibility for their own development. MPG results in enhanced communications with participants' supervisors through a developmental partnership. MPG provides a sound basis for realistic career planning.

Objectives: Upon completion of this course, participants will be able to:

- Prioritize values and motivators.
- Identify opportunities to make their current job more rewarding.
- Clarify job priorities.
- Develop a plan for better use of talents and improvement in key skills.
- Prepare to conduct a discussion with their supervisor to create an action plan to continue developing.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Course #EXC5119
CONGRESSIONAL OPERATIONS SEMINAR

Length: 5 days; 36 hours

Audience: This course is designed for employees who are involved with congressional offices and their staff and/or policy.

Course Description: This course, which is tailored for the Fish and Wildlife Service, provides a comprehensive look at a variety of congressional operations and organizations, and at how Congress affects the daily operation of the Service. This course is conducted on Capitol Hill in order to provide a first-hand understanding of not only the congressional process and procedures, but also the "culture" that is the United States Congress.

Participants will hear from and ask questions of Members of Congress, congressional staff, political scientists, lobbyists, and news media representatives. Participants will have the opportunity to attend congressional committee hearings and observe floor action when Congress is in session.

Objectives: Upon completion of this course, participants will be able to:

- Describe the leadership and organization in Congress.
- Explain the authorization, appropriation and budget processes.
- Describe congressional committee and floor procedures.
- Define the roles of Members and their personal and committee staffs.
- Describe the influence of the media and special interests on public policy formulation.
- Explain the role of congressional liaison offices.

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Fax: (304) 725-0664

"What we must decide is how we are valuable rather than how valuable we are"

Course #EXC5118
BEING PART OF AN EFFECTIVE TEAM

Length: 2 days; 16 hours

Audience: This course is designed for employees who are part of a work team or will be part of a work team in the near future.

Course Description: This course will provide knowledges and skills to maximize participant's effectiveness on their team and the overall effectiveness of the team.

Objectives: Upon completion of this course, participants will be able to:

- Describe the stages of team development and team behavior.
- Define the roles and responsibilities of team members.
- Apply communication processes for effective team interaction.
- Determine their conflict style.
- Apply a process for resolving team conflicts.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Course #EXC5021
TEAM EFFECTIVENESS TRAINING

Length: Varies (4 hours to 48 hours)

Audience: The training is designed for intact Fish and Wildlife Service teams. This includes, but is not limited to, office work teams, ecosystem teams, project/task teams, etc. The training is offered at your request. When your team is ready, contact us to arrange your customized training.

Course Description: This training enables intact teams to determine their team's training needs and receive customized training. There are two steps: 1) Assessment—The team completes an assessment which determines the team's effectiveness and potential training areas. 2) On-site Training—Based on the assessment, specific topics are chosen and the intact team receives the training *on-site.*

Topics:

- Commitment to the Team Approach
- Team Interpersonal Skills:
  - Team Communication
  - Utilizing Team Members' Abilities
  - Conflict Resolution
- Team Management Skills:
  - Shared Team Vision
  - Planning for Results
  - Team Meeting Management
  - Evaluating Team Performance
- Team Analytical Skills:
  - Team Problem Solving
  - Team Decision Making

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Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

***If you think you have no faults,
that makes one more.***

Course #EXC5101
INSTRUCTOR TRAINING

Length: 5 days; 40 hours

Audience: This course is designed for employees who are currently Fish and Wildlife Service instructors or will be instructors in the near future.

Course Description: This course includes principles of adult learning and presentation skills for effective classroom instruction. The participants will have the opportunity to design instruction using different methods and techniques and deliver the instruction during the course.

Objectives: Upon completion of this course, participants will be able to:

- Explain learner oriented instruction and the key factors to consider when instructing adult learners.
- Evaluate their audience and determine the appropriate method of analysis.
- Write instructional objectives and lesson plans.
- Develop training approaches which help them determine how and when their students have learned.
- Apply a variety of instructional methods that enhance their instruction.
- Develop and use visual aids that support their instruction.
- Apply techniques for handling difficult students.

Note: Employees who are coordinating training or employees who will be instructors are encouraged to contact the National Education and Training Center to determine their need for this training.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

Course #EXC5116
DOING MORE WITH LESS

Length: 2 days; 16 hours

Audience: This course is designed for all employees who are impacted by a work environment that is functioning with fewer employees and/or fewer dollars.

Course Description: With the advent of streamlining, downsizing, right sizing, budget reductions, etc., in the Federal government over the last few years, offices and field stations may be expected to provide the same quality service that they always have, but with fewer human and fiscal resources. Employees may take on additional duties and offices may take on additional functions. This course will teach you tools to succeed in working smarter, not just harder.

Objectives: Upon completion of this course, participants will be able to:

- Identify potential "burn-out" situations and apply methods to avoid them.
- Apply time management techniques.
- Develop strategies for coping with stress.
- Exercise self-direction for taking charge of their attitude.

Point of Contact: Employee Excellence Branch,
Phone: (304) 876-1600, ext. 658,
Fax: (304) 725-0664

"Optimism is an intellectual choice"

Don't be afraid to take a big step if one is indicated. You can't cross a chasm in two small jumps.

Think twice before you speak, especially if you intend to say what you think.

Supervision and Leadership

Course #SUP6113
IS SUPERVISION FOR YOU?

Length: 2 days; 16 hours

Audience: Any person considering the move from a technical or staff position into a supervisory role.

Course Description: The course familiarizes participants with supervisory responsibilities to assist them in making an informed decision about entering a supervisory or management career path. The course identifies the competencies needed to be a successful supervisor and provides an overview of the roles, responsibilities, and expectations of a supervisor. Participants will examine their own personal work style and skills to help them avoid early pitfalls should they choose to become supervisors.

Objectives: Upon completion of the course, participants will be able to:

- Describe the pitfalls of being a supervisor;
- Identify diverse personalities and how to supervise them;
- Recognize a supervisor's expectations vs. an employee's; and
- Describe typical assumptions supervisors make.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358; Fax: (304) 725-0664

"A man can succeed at almost anything for which he has unlimited enthusiasm."

— CHARLES M. SCHWAB

Course #SUP6106
INTRODUCTION TO SUPERVISION

Length: 5 days; 40 hours

Audience: Soon-to-be or first-time supervisors.

Course Description: This course provides basic supervisory skills and assists the employee in making the transition into a supervisory role. Participants prepare a development guide and a personal action plan, and receive a "Supervisor's Guide" reference covering many personnel issues. This course provides 40 of the 80-hour training requirement for new supervisors. Topics include: transitioning to supervisor; communications; leadership; motivation; planning through evaluating; customer service; conflict management; and managing a diverse work force.

Objectives: Upon completion of this course participants will be able to:

- Define the role of a supervisor;
- Apply various techniques to improve communications with employees;
- Apply planning methods to job tasks;
- Apply various leadership theories to actual work situations;
- Explain various methods to create a positive working environment;
- Recognize their customers and improve customer service;
- Describe diversity in the work place and assess work-based problems; and
- Describe a variety of conflict resolution techniques and apply steps to resolve problems.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

Course #SUP6109
TRANSITIONING INTO TECHNICAL SUPERVISION

Length: 2.5 days; 20 hours

Audience: New and experienced supervisors who manage a highly technical staff.

Course Description: This course is designed to provide participants with the specific skills required to effectively transition from the role of technical expert to supervisor. This course acknowledges and addresses the development opportunities that exist for new technical supervisors in the technology or research-driven organization experiencing change.

Objectives: Upon completion of this course, participants will be able to:

- Apply the competencies required when moving from the technical to supervisory realm;
- Apply interpersonal communication skills, strategies and tactics required for supervising in high-tech environments;
- Apply motivational techniques for the high achieving, self-directed technical expert; and
- Apply appropriate delegation without snatching back.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

"Obstacles are things a person sees when he takes his eyes off his goal."
— E. Joseph Cossman

Course #SUP6103
THE SUPERVISOR AS COACH AND COUNSELOR

Length: 5 days, 40 hours

Audience: New supervisors wanting to complete their second 40 hours of required supervisory training or experienced supervisors wanting to build additional skills in this area.

Course Description: This course combines SUP6125, "Managing Performance" and SUP6111, "Understanding Performance and Conduct Issues" into one 40-hour course.

Objectives: Upon completion of the course, participants will be able to:

- Establish job elements which provide a picture of the position being analyzed;
- Identify critical elements for the position;
- Develop performance standards for the elements identified;
- Apply communication skills to the performance review;
- Recognize and identify differences between performance and conduct issues;
- Determine the appropriate action to take;
- Develop written office procedures to prevent problems;
- Research DOI/FWS ethics policies with materials provided;
- Recognize sexual harassment and take steps to prevent it;
- Describe the EEO complaint process; and
- Provide feedback and counseling to employees on performance and conduct issues.

Prerequisites: Participants must have been a supervisor for a least 6 months and have completed SUP6106, "Introduction to Supervision" or its equivalent.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

Course #SUP6112
SUPERVISORY UPDATE

Length: Variable

Audience: This is a customized course designed as a refresher for experienced supervisors in the Fish and Wildlife Service. The course will be designed to meet specific needs as identified by the requesting Regional Office.

Course Description: Due to the nature of this course, the objectives are developed for each session based on the needs of the participants as identified by the requesting office. Requests must be received four months prior to the anticipated course date to allow for customization of the course.

Objectives: To be determined based on topic(s) selected.

Available topics include, but are not limited to:

- Situational leadership
- Conflict management
- Effective delegation
- Problem solving
- Decision making
- Motivating subordinates
- Team building
- Change management
- Managing diversity
- Managing employee conduct
- Budget process
- Maintaining a positive work environment
- Coaching and counseling techniques
- Federal personnel management issues
- Downsizing/flattening of the organization

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

Course #SUP6125
MANAGING PERFORMANCE

Length: 3 days; 24 hours

Audience: Both new and experienced supervisors who need to gain or improve skills in this area.

Course Description: This course is designed specifically for the Fish and Wildlife Service and focuses on the Service's performance management system and on coaching and counseling skills for supervisors. Participants are taught techniques for writing job elements and standards that are realistic and practical to evaluate. The course also enables participants to develop skill in conducting the initial goal setting discussion, the mid-year performance review discussion, and the final performance appraisal discussion.

Objectives: Upon completion of the course, participants will be able to:

- Establish job elements which provide a picture of the position being analyzed;
- Identify critical elements for the position;
- Develop performance standards for the elements identified;
- Correct existing standards for increased rating precision;
- Apply foundations of communication skills to the performance review; and
- Apply alternative strategies for dealing with difficult counseling situations.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

Course #SUP6111
UNDERSTANDING PERFORMANCE & CONDUCT ISSUES

Length: 3 days; 24 hours

Audience: Supervisors and managers.

Course Description: This course provides an overview of typical employee performance and conduct issues and ways of successfully handling them.

Objectives: Upon completion of this course, participants will be able to:

- Recognize and identify the differences between performance and conduct issues;
- Determine the appropriate action to take based on the performance or conduct issue;
- Develop written office procedures to prevent problems;
- Determine when to seek assistance from OHR or Personnel.;
- Research DOI/FWS ethics policies and guidance with materials provided;
- Recognize sexual harassment, and take steps to prevent it;
- Describe EEO complaint procedures; and
- Provide feedback and counseling to employees on performance and conduct issues.

Prerequisite: SUP6106, "Introduction to Supervision" or an equivalent course. It is also recommended that participants complete SUP6107, "Supervision and Performance Management" or an equivalent course to get the most benefit from "Understanding Performance and Conduct Issues."

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

Course #SUP6214
INTRODUCTION TO MANAGEMENT

Length: 2 weeks, 80 hours

Audience: First or second-level supervisors who are in charge of a field office, refuge, hatchery, program area, or major function within an office. Participants must have completed a minimum of 40 hours of supervisory training and have been a supervisor for at least one year.

Course Description: This is a mid-level supervisory course which provides advanced training in planning, problem solving, conflict resolution, decision making, stress management, situational leadership, and other topics. Each participant will complete the Leadership Effectiveness Inventory to assess the participant's leadership skills (see "Leadership Effectiveness Inventory Workshop" for a more complete description). The two-week format allows participants to network and develop a long-lasting relationship with other participants. Learning is enhanced by the sharing of experiences through small group exercises, role plays, and games.

Topics include: Leadership Effectiveness Inventory Workshop; Leadership Bridge (situational leadership and personality types); planning, organizing, implementing and evaluating; problem solving and decision making; conflict resolution; managing change; and stress management.

Objectives: This course is currently being revised based on participant comments from the pilot session in FY 95. A course announcement will be issued at a later date providing objectives and other appropriate course information.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

"Instead of using the word problem, try substituting the word opportunity"

Course #SUP6118
FACILITATIVE LEADERSHIP: IMPROVING WORKGROUP EFFECTIVENESS

Length: 3 days; 24 hours

Audience: Supervisors, managers, and others who want to utilize a more effective team approach to accomplishing work objectives.

Course Description: Through a variety of exercises, role plays and group discussions the participants will learn and use various facilitative skills for accomplishing work through a team approach.

Objectives: Upon completion of this course, participants will be able to:

- Identify the characteristics of an effective team or work group;
- Use four constructive interaction skills that enhance the team;
- Use a group process model that promotes participation and involvement;
- Use conflict situations as opportunities to improve team performance;
- Understand the negative effects on group interaction when difficult personality types are not dealt with; and
- Use coping steps and techniques when encountering difficult personality types during group interaction.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

Course #SUP6117
TAKING CHARGE OF CHANGE

Length: 2 days; 16 hours

Audience: Supervisors and managers at all grade levels.

Course Description: The course explores change in both our personal and professional lives; looks at how people react to change; examines changes occurring within the Fish and Wildlife Service; identifies the manager's role as a filter for change, in the creation of a positive environment for change, and in helping others adjust to change; and explores how to take advantage of opportunities for change and how to initiate change.

Objectives: Upon completion of this course, participants will be able to:

- Describe the change process;
- Identify how change is affecting them;
- Identify barriers that inhibit their progression through the change cycle;
- Develop strategies to deal with the barriers;
- Apply the concepts of Situational Leadership to the change process;
- Apply a decision making process to dealing with change; and
- Develop strategies to assist employees in managing change and stress.

Note: See Course EXC5017, "Understanding and Dealing With Change," on page 52 which is the companion course for employees.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

Course #SUP6110
THE LEADERSHIP BRIDGE

Length: 2 days; 16 hours

Audience: All supervisors and managers.

Course Description: To effectively manage other people it is important to understand one's own predictable behaviors. This course utilizes the Myers Briggs Type Indicator (MBTI) or the DiSC assessment tool to assist in understanding your own personality traits and the Situational Leadership Profile to assist in applying those traits toward effective leadership.

Objectives: Upon completion of the course participants will be able to:

- Define personal preferences and leadership styles;
- Understand and identify the personal preferences of others; and
- Determine the most effective leadership style for a situation based on the developmental level and needs of others.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358;
Fax: (304) 725-0664

Course #SUP6115

LEADERSHIP EFFECTIVENESS INVENTORY WORKSHOP

Length: 1/2 day; 3.5 hours

Audience: This workshop is designed for all supervisors and managers. The workshop is also available by request with a minimum class size of ten. This workshop may also be offered as an additional session for other supervisory and management courses. If you are interested in the assessment, check with the appropriate course leader.

Course Description: Participants will take the Leadership Effectiveness Inventory (LEI) to identify their managerial strengths and developmental needs and draft an individual development plan for both on-the-job and formal training. The LEI is based on the Leadership Effectiveness Framework (LEF), a research-based model which defines Federal managerial effectiveness in terms of twenty-two competencies.

Objectives: Upon completion of this workshop, participants will be able to:

- Review and analyze the data from their Leadership Effectiveness Inventory;
- Identify their strengths and assess their developmental needs;
- Develop a draft IDP; and
- Prepare for a follow-up discussion with their supervisor.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358; Fax: (304) 725-0664

Course #SUP6104

LEADERSHIP EFFECTIVENESS INVENTORY (LEI) AND THE MYERS-BRIGGS TYPE INDICATOR (MBTI)

Length: 1.5 days; 12 hours

Audience: All supervisors and managers.

Course Description: This workshop provides supervisors and managers with a chance to focus on the gap between required job skills and one's current skill level by receiving feedback from the supervisor, direct reports and peers. Reasons for the gaps and strategies for eliminating them are explored by examining the results of the LEI and the MBTI.

Objectives: Upon completion of this workshop participants will be able to:

- Review and analyze the data from their LEI;
- Assess their developmental needs;
- Understand their MBTI results and preferred personality type; and
- Understand how the MBTI and LEI relate.

Point of Contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358; Fax: (304) 725-0664

This course is also available for on-site presentation with a minimum class size of ten.

"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."
— LEOPOLD

Course #SUP6105
LEADERSHIP DEVELOPMENT PROGRAM*

Length: 6 days; 44 hours

Audience: Upper-level managers, GS-14 and 15 (In FY 96 priority will be given to GS-15's and ARD's at GS-14 as nominated by their regions)

Course Description: Participants will acquire a better understanding of their strengths and weaknesses, improve their ability to give constructive feedback to direct reports, and develop their leadership style and effectiveness. The program also helps increase the participant's confidence and assists them in setting clearly defined goals. This is an intense, 6-day program, combining lectures, group exercises, assessment questionnaires, and individual feedback to evaluate the participants' leadership abilities. Topics include: creative leadership process; performance development; decision making; utilizing group resources; enhancing the learning process; leadership and team problem solving; and goal setting.

Objectives: The Leadership Development Program is based on the following objectives:

- Building the confidence needed for leadership effectiveness;
- Increasing the motivation and ability to set and achieve organizational and personal goals;
- Stimulating personal and career growth through self-directed development; and
- Improving management skills by identifying strengths and weaknesses as perceived by others.

Point of contact: Supervision and Management Branch, Phone: (304) 876-1600 ext. 358; Fax: (304) 725-0664

This course in offered in coordination with the Center for Creative Leadership.

Course #SUP6420
WOMEN'S EXECUTIVE LEADERSHIP PROGRAM (WEL)

Length: One year program with a five week residential requirement.

Tuition: $3,650. This does not include travel and per diem expenses which are the responsibility of the employing agency.

Audience: Non-supervisory employees or new supervisors with less than one year's experience at the GS-11 and 12 levels.

Course Description: The WEL Program components provide training and developmental experiences in the areas of communications, Federal personnel management, legal and ethical issues, mentoring/networking, negotiation skills, teambuilding, briefing techniques, managerial business practices, professional image, organizational survival/political savvy, career success factors, coaching and counseling, leadership and supervisory skills, and congressional briefings.

This program is conducted as announced by the Office of Personnel Management. A special announcement will be made by the National Education and Training Center providing specific dates and application procedures. Residential training takes place in the Washington Metropolitan Area.

Objectives: Upon completion of the Women's Executive Leadership Program participants should be able to:

- Assess their potential in careers as future supervisors, managers, and executives, and the kinds of job-relevant knowledge, skills, and abilities that will enhance success.
- Strengthen teambuilding and interpersonal skills needed for effective group interaction and decision making.
- Commit to personal development and continued learning.
- Explore current issues facing managers in the Federal workforce.

Point of Contact: Joe Piehuta, National Education and Training Center, Arlington, Virginia, Phone: (703) 358-1817; Fax: (703) 358-2283.

Course #SUP6421
FEDERAL EXECUTIVE INSTITUTE (FEI)

Length: There are two program options consisting of either a four week residential session for those who have never attended the Institute or shorter (1 week) non-residential sessions for previous attendees.

Tuition: $8,000 for the four week session.
$1,000 for the one week session.

Travel expenses for the FEI are the responsibility of the nominee's employing office.

Audience: Executives and Candidates in the Senior Executive Service (GS-15 and above).

Course Description: Participants are provided instruction in policy, presentation skills, dealing with the media, negotiation skills, and performance-based approach to individual development and leadership in the Federal context. The FEI satisfies the requirements of the SES Candidate Development Program.

This program is conducted as announced by the Office of Personnel management in August of each year. A special announcement will be made from the National Education and Training Center providing specific dates and application procedures. Residential session are conducted in Charlottesville, Virginia; non-residential session are held in Washington, DC.

Objectives: Participants of the FEI Program should be able to:

- Link individual development to improved organizational performance.
- Address the active leadership role expected of career senior executives.
- Integrate the theme of "specialist to generalist to leader" throughout the program.
- Focus on innovative Federal management practices.

Point of Contact: Joe Piehuta, National Education and Training Center, Arlington, Virginia, Phone: (703) 358-1817; Fax: (703) 358-2283.

"One of the most dangerous forms of human error is forgetting what one is trying to achieve"

Course #SUP6422
THE LEGIS FELLOWS PROGRAM FOR EXECUTIVE DEVELOPMENT

Length: One full year session begins in January and ends in December; two sessions are six months long and begin in January and June (usually announced in July).

Tuition: $4,800. Travel expenses for the Legis Fellows Program are the responsibility of the participant's employing office.

Audience: The Legis Fellows Program is primarily designed for executives and candidates in the Senior Executive Service and for managers in agency developmental programs. It is secondarily designed for GS-14 or equivalent positions. Participants at the GS-13 level may be accepted in special circumstances.

Course Description: Program Fellows receive instructions and hands-on experience in a Congressional office through training/developmental activities. These activities consist of three weeks of intensive briefings on the operations and organization of the Congress; a full-time staff assignment with a Congressional member, committee, or support agency and; frequent seminars during the work assignment on Capitol Hill.

As announced by the Office of Personnel management. A special announcement will be made by the National Education and Training Center providing specific dates and application procedures. All sessions are held in Washington, DC.

Objectives: Upon completion of the program participants will:

- Have a working knowledge of Congressional organizations and operations and how they relate to fulfilling the agency's mission.
- Understand the structure and work of Congressional committes and support agencies.

Point of Contact: Joe Piehuta, National Education and Training Center, Arlington, Virginia, Phone: (703) 358-1817; Fax: (703) 358-2283.

Course #SUP6423
EXECUTIVE POTENTIAL PROGRAM (EPP)

Length: 12 months. To complete the minimum requirements of the Executive Potential Program, each participant may be expected to be away from his/her position of record for a minimum of six months over the course of the year. Scheduling of developmental activities may be timed to minimize disruptions in department or agency work flow.

Tuition: $4,900. The tuition payment does not include related travel or per diem costs. Travel, meals, and lodging costs are the responsibility of the employing agency.

Audience: The program is open to career/career conditional full-time permanent Federal employees at the GS-13 and 14 levels who have demonstrated significant managerial or executive potential. Participants may be entry level managers with limited formal managerial training or be expected to assume responsibility for programmatic or policy leadership in their departments or agencies in the near future.

Course Description: The EPP is designed around a model of effective managerial performance developed by OPM known as the Leadership Effectiveness Framework (LEF). Program components consist of a core curriculum, individual managerial training needs assessment, development of an individual development plan with the assistance of a career member of the SES serving as a mentor in an advisory capacity, developmental work assignments and cluster group participation.

The Executive Potential Program is announced by the Office of Personnel Management in September of each year. A special announcement will be made by the National Education and Training Center providing specific dates and application procedures. Residential seminars are held within a 300-mile radius of Washington, DC.

Objectives: Upon completion of the program participants will:

- Have a foundation of management training and appropriate development experiences in preparation of higher level management or executive positions.
- Be able to complement their technical expertise with professional management skills.
- Be prepared for transitioning into management as a second profession.

Point of Contact: Joe Piehuta, National Education and Training Center, Arlington, Virginia, Phone: (703) 358-1817; Fax: (703) 358-2283.

"Actions spring not from thought, but from a readiness for responsibility"

Course #SUP6424
MANAGEMENT DEVELOPMENT CENTERS PROGRAM (MDC)

Length: Most MDC Seminars are two weeks in length. However, the Alternative Dispute Resolution; Energy Policies, Systems, and Issues; Health Care Policy Issues; Government Performance and Results; Management Assessment Program and; Reinventing the Organization seminars are one week long.

Tuition: $2,450 for two-week seminar. $1,550 for one-week seminars. This includes tuition and per diem expenses. Travel costs to and from the training site are the responsibility of the employing agency.

Class Size: 30–40 participants.

Audience: Management Development Centers programs are targeted to highly motivated Federal managers, GS-13 and higher. In response to the National Performance Review's recommendations, many agencies are delegating increasing authority to staff at a slightly lower level. Participants will normally be at the suggested grade levels, however, high-performing nominees at one grade lower are welcome with a written justification.

Course Description: The MDC offers two kinds of seminars: Management and National Policy.

The Management Seminars focus on management issues, concerns, skills, and competencies needed by government managers and executives. Each seminar targets a specific level of manager or executive. All of these seminars are designed around a model of effective managerial performance known as the Leadership Effectiveness Framework (LEF).

The National Policy Seminars provide a forum for key administration spokespersons to address high priority policy issues with career managers and executives. This opportunity for interaction between policy makers and policy implementers is one of the unique strengths of the Management Development system. Visiting faculty, drawn from the leadership ranks of business and academia, are also utilized as instructors in the policy seminars. During workshops, participants have the opportunity to explore policy issues relevant to their own agencies and programs as well as to larger national concerns.

Several seminars in the curriculum have been certified for graduate-level course credit at cooperating colleges and universities.

As announced by the Office of Personnel Management. A special announcement will be made by the National Education and Training Center providing specific dates and application procedures. Seminars are conducted at two locations: Lancaster, Pennsylvania, and Denver, Colorado.

Objectives: The Management Development and National Policy Seminars allow participants to:

- Develop managerial skills and learn to manage effectively in an environment undergoing profound change.
- Examine management topics relevant to successful, experienced managers, focusing on the organizational role of the manager.
- Explore the leadership roles of the senior executive, emphasizing complex internal issues and broad external concerns.
- Emphasize the strategy of organizational transformation and help to develop the tools needed for successful programs.
- Focus on strategic thinking and planning, the measurement of outcomes, and effective methods of reporting results to help participants understand the requirements for implementing the Government Performance and results Act of 1993.
- Manage change, realign communication, and reengineer programs.

Point of Contact: Joe Piehuta, National Education and training Center, Arlington, Virginia, Phone: (703) 358-1817; Fax: (703) 358-2283.

"The last word in ignorance is the man who says of an animal or plant: 'What good is it?' If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering."

— LEOPOLD

Service Pollution Control Office (SPCO)

RCRA WASTE MANAGEMENT REGULATIONS COURSE

Length: 2 days, 16 hours

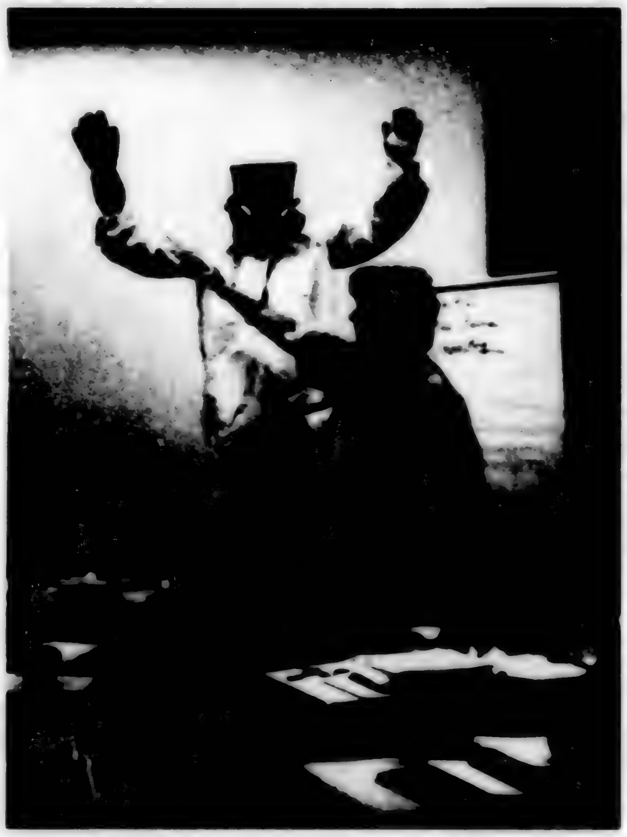
Audience: Project Leaders/ Managers and their assistants, Maintenance personnel, personnel involved in Hazardous Materials/Waste Management on a day-to-day basis in Service facilities, personnel responsible for environmental compliance responsibilities.

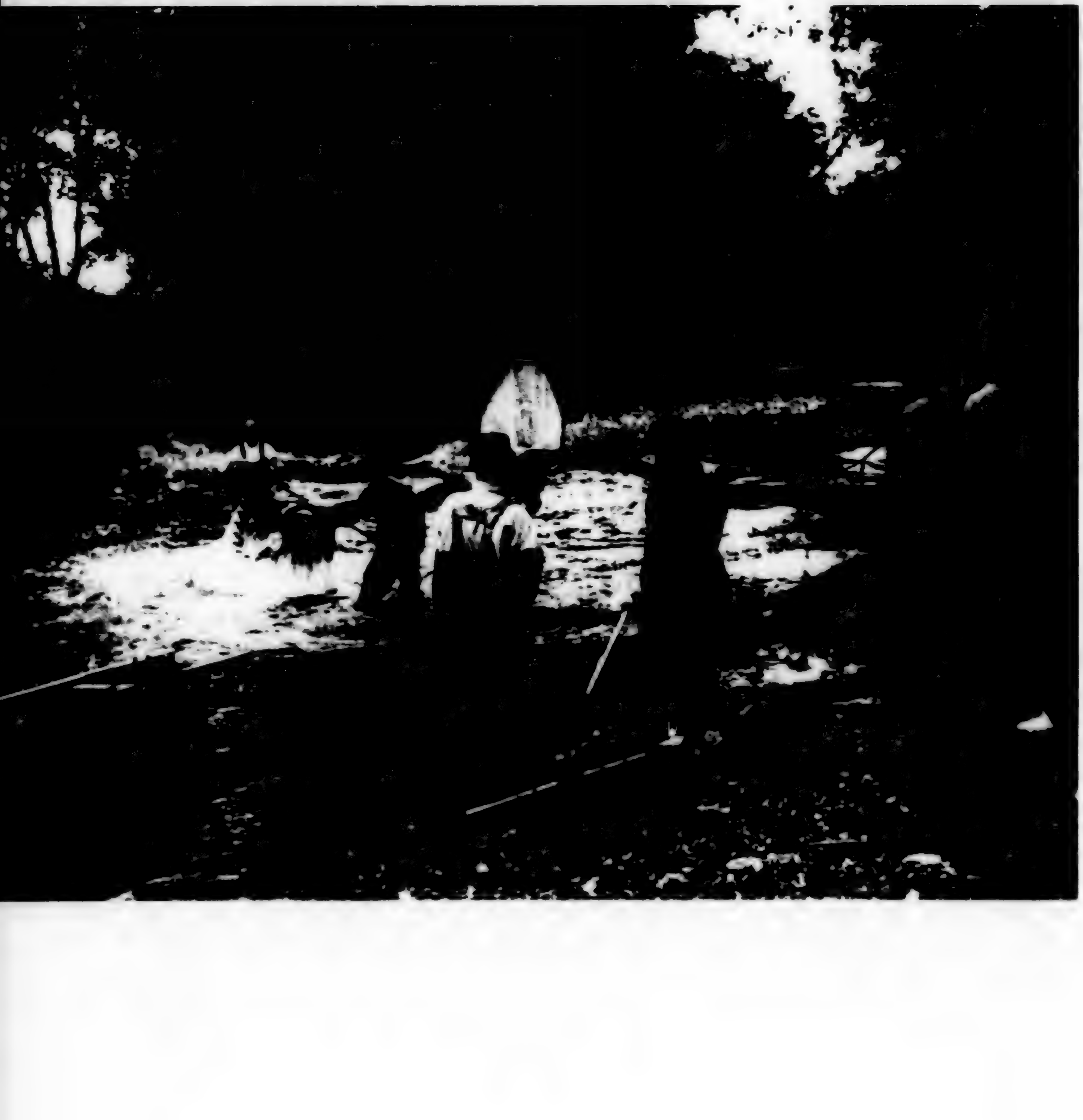
Course Description: Participants can expect to obtain a very brief overview of Hazardous Materials/ Waste Management and about Resource Conservation and Recovery Act (RCRA). Videos and slides will supplement standard learning methods of classroom instruction and discussions.

Topics:

- Definition of Hazardous substance, materials and wastes; Hazard classes
- MSDS, Hazard Communications Program (HAZCOM)
- Labeling systems
- Response and Reporting
- DOT requirements for Hazardous Materials/ Waste Transportation
- Use of Emergency Response Guidebook and DOT Hazardous Materials Table book
- Definition of Solid waste; Listed and Characteristic Wastes
- Generator status
- Waste Treatment and disposal options
- Used oil management
- Brief overview of self-auditing techniques

Point of Contact: Course Leader: V.A. Sridhar, Phone: (303) 275-2344, Service Pollution Control Office (SPCO), P.O. Box 25207, Denver, CO





Freedom has to do with the many ways in which leaders allow, encourage and support initiative among employees.

CUSTOMERS AS PARTNERS

CHIP R. BELL, 1994

Collateral Duty Safety Officer (CDSO) Training

COLLATERAL DUTY SAFETY OFFICER (CDSO) TRAINING

Appointment and training of a CDSO is a FWS requirement. Training should be completed within 6 months of appointment to the position. CDSO training is offered at the annual Departmental Safety and Health Conference. The Occupational Safety and Health Administration (OSHA) provides training throughout the country. The OSHA Training Institute in Des Plaines, Illinois will forward a catalog of training opportunities to you by calling (312) 353-2500. You may also contact your Regional Safety Manager for information on local CDSO training opportunities. Regional Safety Managers phone numbers are as follows:

R1 Safety Manager—James McNulty
(503) 231-2327

R2 Safety Manager—Laurie Hileman
(505) 766-2244

R3 Safety Manager—Gerald Mohl
(612) 725-3512

R4 Safety Manager—Kenneth Cooper
(404) 679-4184

R5 Safety Manager—Edward Bajakian
(413) 253-8311

R6 Safety Manager—Kevin Jensen
(303) 236-8116

R7 Safety Manager—Linda Worcester
(907) 786-3551

Please ensure efforts are made to obtain this mandated CDSO training.

Training is part of the process of development that advances and maintains individuals within an organization.

PERSONNEL MANAGEMENT IN GOVERNMENT
SHAFRTIZ, HYDE AND ROSENBLOOM, P. 403

Law Enforcement

General Information

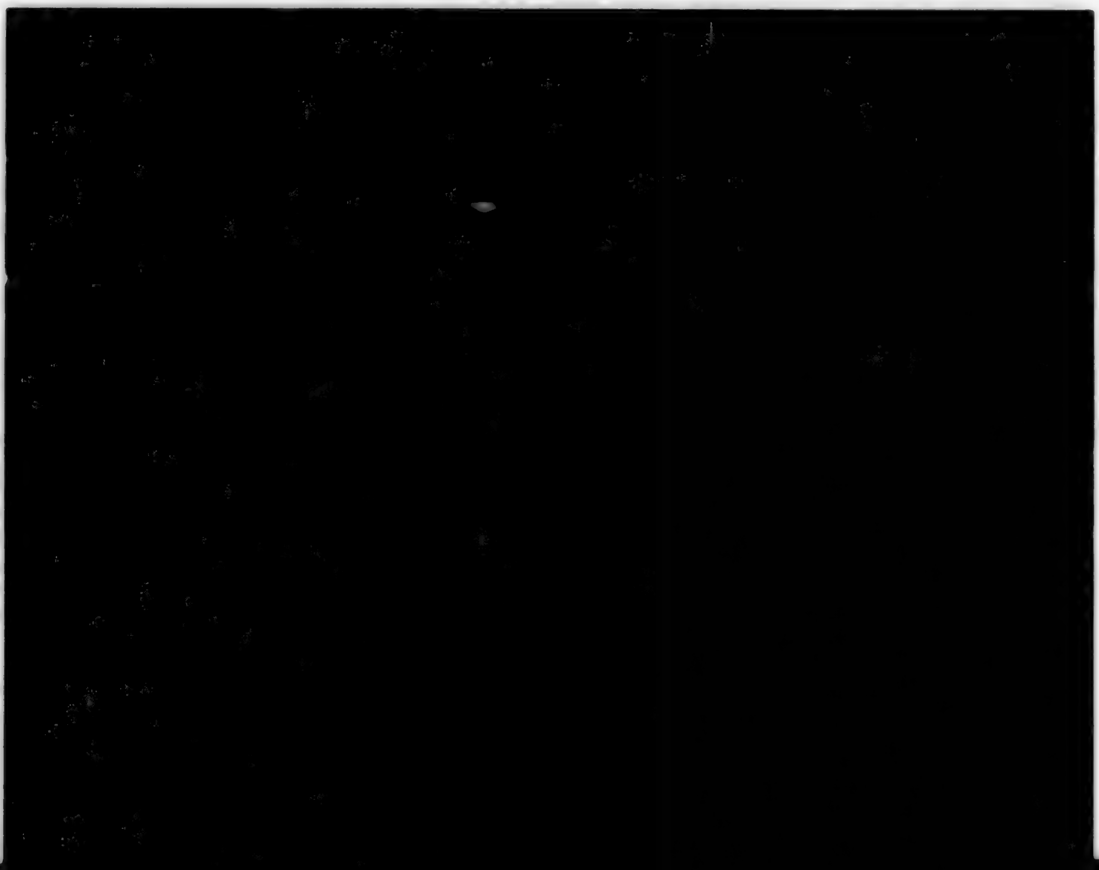
The Federal Law Enforcement Training Center (FLETC) in Glynco, Georgia, is managed by the Department of Treasury and serves as an interagency law enforcement training facility for over 70 Federal organizations, including the Service.

The Division of Law Enforcement (Branch of Training and Inspection) and the Division of Refuges retain a small resident staff to develop, coordinate, and conduct, basic/advanced law enforcement training programs for Special Agents, Wildlife Inspectors, and Refuge Officers.

All basic law enforcement training is conducted at the Glynco facility. In conjunction with the Glynco facility one satellite training center located at Artesia, New Mexico, is used for advanced and In-Service Law Enforcement training.

Information concerning Service Law Enforcement training may be obtained by contacting:

Special Agent in Charge
Branch of Training and Inspection
FLETC, Bldg. 69
Glynco, GA 31524
Phone: (912) 267-2370
Fax: (912) 267-2925



SPECIAL AGENT BASIC SCHOOL (SABS)

Date and Location: The SABS program is conducted at the Federal Law Enforcement Training Center (FLETC) located at Glynco, Ga. The program is held immediately after the officer's successful completion of the eight week Criminal Investigator Program administered by FLETC. Dates for the SABS program will fluctuate. Start date this year is August 22, 1995, at FLETC.

Length: Eight weeks; 320 hours

Audience: Enrollment is reserved for newly appointed Special Agents with the Division of Law Enforcement.

Course Description: The Special Agent Basic School (SABS) course covers the treaties, statutes, regulations, policies and procedures administered by the Division of Law Enforcement. Special Agents are exposed to four separate wildlife identification courses during the program (waterfowl, eagle, raptor, and endangered species). The school incorporates wildlife law enforcement operations, techniques, safety, practical exercises and professional skills. Practical and written exams are given to evaluate the Special Agent's progress.

Objectives: Upon completion of the program, participants will be able to:

- Identify statutes, treaties, and regulations administered by the Service.
- Identify general characteristics of species studied.
- State the culpability standards, penalty provisions and the enforcement authority of Service Special Agents.
- Name the general amendments and prohibited activities enumerated by statutes enforced by the Service.
- Discuss the prohibitions, enforcement provisions, policies and procedures promulgated pursuant to each Act enforced by Special Agents.

Point of Contact: Rick Thornton, Branch of Training and Inspection, Glynco, GA,
Phone: (912) 267-2370; **Fax:** (912) 267-2925

WILDLIFE INSPECTOR BASIC TRAINING PROGRAM (WIBTP)

Date and Location: The Wildlife Inspector Basic Training Program is conducted at the FLETC located at Glynco, GA. The program is scheduled to be held annually in the month of January.

Length: Four weeks; 160 hours

Audience: Enrollment is reserved for newly appointed Wildlife Inspectors with the Division of Law Enforcement.

Course Description: The Wildlife Inspector Basic Training Program covers the treaties, statutes, regulations, policies, and procedures administered by the Service. Wildlife Inspectors are exposed to mammal, reptile, and amphibian identification courses, and specific techniques required to handle wildlife inspections of fish and wildlife, including parts and manufactured wildlife products. Inspectors receive training in the enforcement of the import/export provisions of the various laws enforced by the Service and cooperative enforcement activities administered by U.S. Customs, U.S. Department of Agriculture, USFWS Office of Management Authority, and the Canadian Wildlife Service.

Objectives: Upon completion of the program, participants will be able to:

- Identify statutes, treaties, and regulations administered by the Service.
- Identify general characteristics of species studied.
- Execute the current wildlife inspection techniques utilized by the Service.
- Describe the current operational policies and port procedures.
- Identify the import/export enforcement techniques currently utilized by the Service.

Point of Contact: Rick Thornton, Branch of Training and Inspection, Glynco, GA,
Phone: (912) 267-2370; **Fax:** (912) 267-2925

IN-SERVICE TRAINING FOR WILDLIFE INSPECTORS

Date and Location: The program is held annually at the FLETC facility located at Davis-Monthan AFB. For specific information on dates contact the Division of Law Enforcement, Branch of Training and Inspection, Glynco, GA.

Length: 5 days; 40 hours

Audience: All Wildlife Inspectors will attend the annual in-service training program.

Course Description: The program is designed for personnel to maintain proficiency in law enforcement techniques and skills and increase professional development. A core curriculum is established and utilized in the training of all Wildlife Inspectors. The program consists of pertinent/timely topics. Updates on national/international law enforcement activities, policy, significant legal issues, and officer safety techniques are reviewed.

Objectives: Upon completion of the program, the participants will be able to:

- Identify new international law enforcement problems.
- Understand current/pertinent legal issues regarding inspection of fish and wildlife.
- Identify changes in laws and regulations governing importation and exportation of fish and wildlife.
- Evaluate officer safety techniques.

Point of Contact: Doug Goessman, Branch of Training and Inspection, Glynco, GA,
Phone: (912) 267-2370; Fax: (912) 267-2925

"The law locks up the man or woman, who steals the goose from off the common. But the greater villain the law lets loose, who steals the commons from the goose."

— ANONYMOUS 17TH CENTURY

SUPERVISORY LAW ENFORCEMENT TRAINING

Date and Location: The program will be conducted at Glynco, GA, as announced. The most recent session was held on May 23–27, 1994 at FLETC.

Length: 5 days; 40 hours

Audience: Enrollment is limited to Division of Law Enforcement supervisory Special Agents, i.e. Senior Resident Agents, Senior Desk Officers—Washington Office/Law Enforcement and Deputy Assistant Regional Directors for Law Enforcement.

Course Description: The program includes sessions on supervision of employees and control of investigative activities; management considerations in selecting the appropriate investigative techniques; time and case management; proper submission and documentation of proposals for covert investigations; special funds policy-documentation and accountability, supervision and maintenance of covert books and records; effective media and public relations; update on controlled substances identification; drug enforcement initiatives on Service lands, and a variety of other topics affecting law enforcement supervisors nationwide.

Objectives: Upon completion of the program, the participants will be able to:

- Identify various styles of supervision.
- Provide guidance and direction to subordinate agents during the conduct of investigations.
- Identify considerations for selecting an investigative technique.
- Effectively deal with the media regarding law enforcement activities.

Point of Contact: Rick Thornton, Branch of Training and Inspection, Glynco, GA,
Phone: (912) 267-2370; Fax: (912) 267-2925

SPECIAL AGENT COVERT WILDLIFE INVESTIGATION PROGRAM

Date and Location: July '96; Glynco, GA

Length: 10 days; 80 hours

Audience: Enrollment is limited to Service law enforcement officers.

Course Description: The program is designed to train Service officers in the purposes and objectives of covert operations, as well as enable the officers to identify various types of covert operations. The course incorporates lectures, computerized accounting procedures, role-playing situations, and directed discussions on Service undercover policies, including the utilization of special funds. The Service officers receive practical training in the use of technical equipment pertaining to covert operations, and detailed instruction concerning legal issues arising during undercover operations.

Objectives: Upon completion of the program, the participants will be able to:

- Name important considerations in the establishment of their undercover identities.
- Identify the numerous areas in which preparation is necessary before undercover operations can safely begin.
- Identify/utilize specialized equipment designed for undercover operations.
- Describe the specialized accounting procedures used in documenting undercover operations.
- Discuss Service policy pertaining to undercover operations. Identify methods and effects of terminating undercover operations.

Point of Contact: Rick Thornton, Branch of Training and Inspection, Glynco, GA,
Phone: (912) 267-2370; Fax: (912) 267-2925

"Be bold and courageous. When you look back on your life, you'll regret the things you didn't do more than the ones you did"
— ANON

COVERT WILDLIFE INVESTIGATION PROGRAM

Date and Location: July 10–21, 1995; at FLETC

Length: 10 days; 80 hours

Tuition: There will be a nominal charge of $200.00 for each participant. All checks will be made payable to the Federal Law Enforcement Training Center. There will be no other charges for the training program; however, participants will be responsible for payment of their travel, lodging, and meal costs for the two week period.

Audience: Enrollment is limited to officers from state, Native American, and foreign wildlife law enforcement agencies, and other Federal agencies (e.g. Park Service, Forest Service, BLM, etc.).

Course Description: This program is designed to train wildlife law enforcement officers in the purposes and objectives of undercover operations, as well as enable the officers to identify various types of covert operations. The course incorporates lectures, role-playing situations, and directed discussions. Instructors and students are encouraged to exchange information about their own experiences, thereby improving their individual techniques and identifying solutions to problems and alternatives to actions. The officers receive information from technicians about equipment useful in undercover operations and also receive instruction about legal issues which surface throughout undercover operations.

Objectives: Upon completion of the program, the participants will be able to:

- Name important considerations in the establishment of their undercover identities.
- Identify the numerous areas in which preparation is necessary before undercover operations can safely begin.
- Identify and use specialized equipment necessary to conduct undercover investigations.
- Execute methods and understand effects of terminating undercover operations.

Point of Contact: Rick Thornton, Branch of Training and Inspection, Glynco, GA,
Phone: (912) 267-2370; Fax: (912) 267-2925

REFUGE OFFICER BASIC SCHOOL (ROBS)

Date and Location: This program is conducted at the Federal Law Enforcement Training Center (FLETC) located at Glynco, GA. The program is currently scheduled each year for the months of January and August. The dates for this year are August 7–18, 1995, at FLETC.

Length: 10 days; 85 hours

Audience: Each Refuge Officer will be required to attend after successful completion of the eleven week basic land management program conducted at FLETC.

Course Description: The Refuge Officer Basic School covers the treaties, statutes, regulations, policies, and procedures administered by the Division of Refuges law enforcement program. The school incorporates classes on authority and jurisdiction, report writing, forensics, commercialization of wildlife, waterfowl ID, tracking/sign recognition, and a 16 hour qualification course in Pressure Point Control Tactics. Practical exercises and a written exam are given to evaluate the Refuge Officer's progress.

Objectives: Upon completion of the program, participants will be able to:

- Identify statutes, treaties, and regulations administered by the Division of Refuge LE program.
- Identify general characteristics of species studied.
- Describe the Refuge LE Manual and policies.
- Correctly utilize law enforcement reports and evidence forms discussed.
- Satisfactorily demonstrate the Pressure Point Control Tactics.

Point of Contact: Rick Thornton, Branch of Training and Inspection, Federal Law Enforcement Training Center, Glynco, GA,
Phone: (912) 267-2370; Fax: (912) 267-2925

LAW ENFORCEMENT FOR MANAGERS COURSE

Date and Location: The course will be held annually usually during the month of February. For specific information contact the Regional Refuge Law Enforcement Coordinator or the Refuge Law Enforcement Specialist located at Glynco, Ga. The course is scheduled for August 8–11, 1995 and will run concurrently with the Refuge Officer Basic School.

Length: 3.5 day; 28 hours

Audience: Deputy Assistant Directors Washington Office, Deputy Regional Directors, Associate Managers for Wildlife, and other Regional Field Supervisors.

Course Description: Working in close concert the Division of Law Enforcement and the Division of Refuges will provide management level personnel with an overview of Service law enforcement. The course is primarily aimed at management level personnel who have either budgetary or supervisory responsibilities over law enforcement officers and/or activities. The course is designed to introduce supervisors to the unique liabilities, stresses, and responsibilities associated with law enforcement. The participants will be exposed to enforcement authority, jurisdiction, preventive law enforcement, federal court procedures, Service policies and manuals.

Objectives: Upon completion of the program, the participants will be able to:

- Discuss preventive law enforcement.
- Identify civil/criminal liabilities.
- Describe Service enforcement authority and jurisdiction.
- Identify laws enforced by Service LE personnel.
- Understand DM 446 LE requirements.

Point of Contact: K.C. Frederick, Branch of Training and Inspection, Federal Law Enforcement Training Center, Glynco, GA,
Phone: (912) 267-2370; Fax: (912) 267-2925

In a seamless organization, people have broad responsibilities and great authority over work procedures. They are trained to take on new tasks, and their training and education continue throughout their career.

SEAMLESS GOVERNMENT
RUSSELL M. LINDEN, P. 51

UNDERCOVER BUSINESS BOOKS SCHOOL

Date and Location: The date and location for this program is determined by the Branch on Training and Inspection and is dependant upon a specific request for the training by the Assistant Regional Director(s) for Law Enforcement.

Length: Three days; 24 hours

Audience: Enrollment is reserved for any active Special Agent with the Division of Law Enforcement.

Course Description: This course familiarizes the Special Agent with current policy regarding the use of special funds, rewards, undercover businesses, undercover operations and the Director's priorities, "buy-bust" situations, "pretext" interviews, three classes of undercover operations, renewing and upgrading undercover operations, consensual monitoring requests, informants, putting together and submitting undercover proposals, setting up and utilizing a ledger, using computer programs to maintain the undercover business books, auditing undercover business books and practical exercises involving the maintenance of undercover business books.

Objectives: Upon completion of the program, participants will be able to:

- Describe the current FWS policies regarding undercover operations and the maintenance of undercover business books.
- Describe the differences between a Class I, Class II and Class III undercover operation and what circumstances warrant the use of the different classes of undercover investigation.
- Accurately maintain and audit the business books for an undercover investigation.

Point of Contact: Doug Goessman, Branch of Training and Inspection, Glynco, GA,
Phone: (912) 267-2370; Fax: (912) 267-2925

"There are good men everywhere. I only wish they had louder voices"
— ANON

LAW ENFORCEMENT FOR SUPERVISORS

Length: 2.5 days, 20 hours

Audience: Field or first line supervisors of law enforcement personnel who themselves do not have law enforcement authority.

Course Description: This course satisfies the mandatory "20 hours every three years" of LE training for supervisors of LE personnel. Participants receive an overview of Service law enforcement activities, policies, and requirements. This course is usually held in conjunction with a Refuge Officer Basic School or a Regional In-Service to enable participants to observe the training that Refuge Officers are receiving.

Topics:

- Supervisory civil/criminal liabilities
- Refuge Officer duties and responsibilities
- Field station law enforcement programs
- Preventive law enforcement
- Refuge officer training, equipment needs, and stress management

Point of Contact: Rick Thornton, Branch of Training and Inspection, Federal Law Enforcement Training Center, Glynco, GA,
Phone: (912) 267-2370 or Regional Refuge LE Coordinator

ADVANCED LAW ENFORCEMENT COURSES FOR REFUGE OFFICERS

Length: days, hours see below

Audience: Refuge Officers with basic and ROBs training

Course Description:

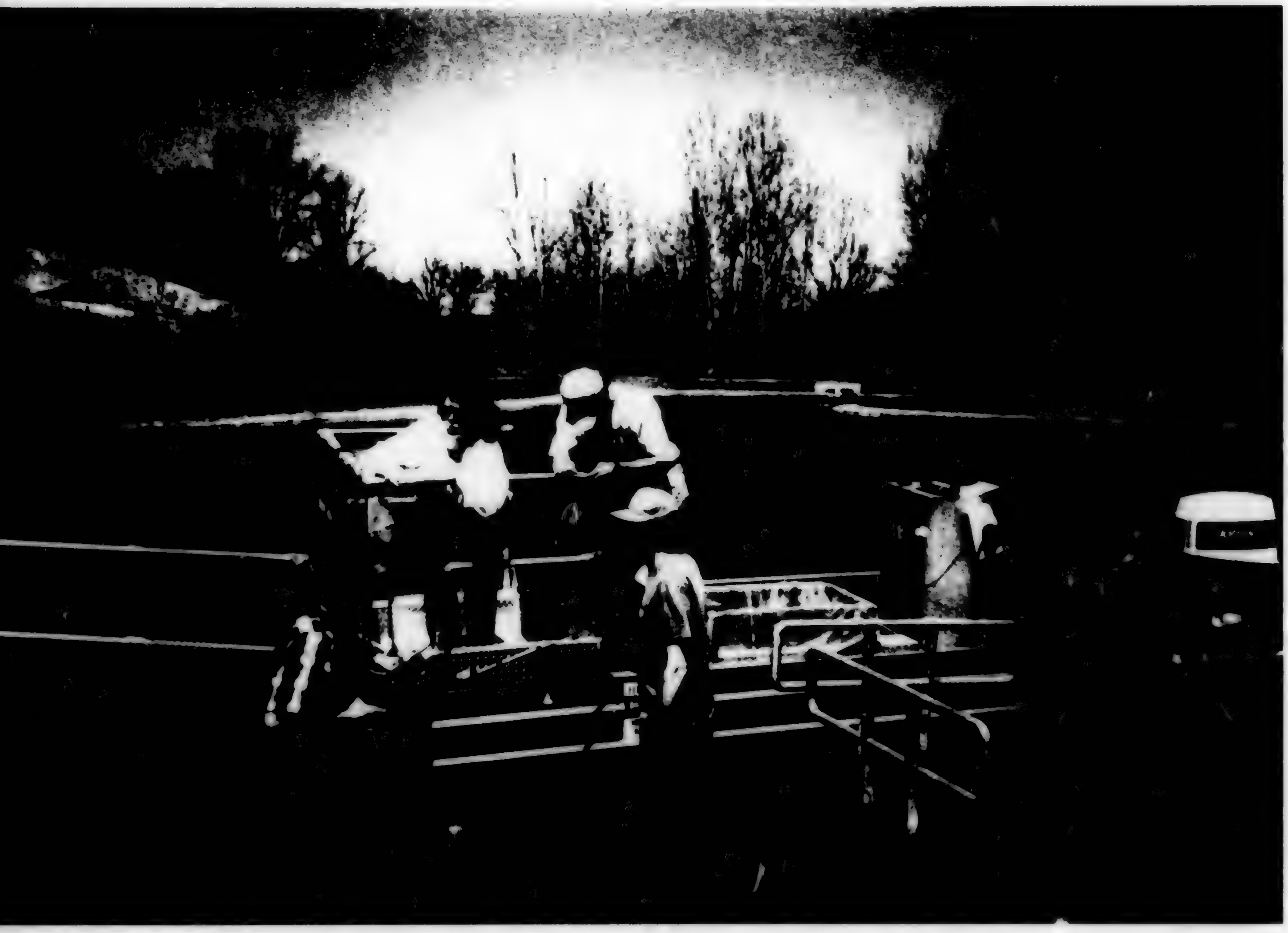
- National Wildlife Investigation (10 days)
- Spanish for LE Officers (10 days)
- Firearms Instructor Training Programs (10 days)
- Archaeological Resources Protection Training Program (5 days)
- Physical Fitness Coordinator Training Program (10 days)
- Marine Law Enforcement Training Program (10 days)

Topics: These are advanced courses available on a limited basis from the Federal Law Enforcement Training Center. Prospective students should contact their Regional Refuge Law Enforcement Coordinators for more information.

Point of Contact: Rick Thornton, Branch of Training and Inspection, Federal Law Enforcement Training Center, Glynco, GA,
Phone: (912) 267-2370

"Two perceptions cast their shadows over my existence. One consists in my realization that the world is inexplicably mysterious and full of suffering; the other in the fact that I have been born into a period of spiritual decadence in mankind. I have become familiar with and ready to deal with each, that principle my life has found a firm footing and a clear path to follow. I therefore stand and work in the world as one who aims at making men less shallow and morally better by making them think."

— ALBERT SCHWEITZER



"Reflect upon your present blessings — of which every man has many — not on your past misfortunes, of which all men have some"

General Information

Natural resource biologists and managers continually need access to new knowledge, skills, and technologies in their efforts to protect and enhance our nation's resources. The National Biological Service (NBS), through the Midcontinent Ecological Science Center (MESC), and Colorado State University, through the College of Natural Resources, help to meet this need by offering a special selection of natural resources management courses. Some of these courses are regularly scheduled throughout the year, others are available as correspondence courses and independent study providing the participants the flexibility to work and learn at their own pace.

The courses are categorized into four topics. Habitat Evaluation Procedures courses pertain to a state-of-the-art technique for habitat-based impact assessment and resource management for both aquatic and terrestrial systems. Instream Flow Incremental Methodology courses describe the various components of an impact assessment and management tool for riverine resource management. Managing Environmental Conflict courses are offered to develop negotiation and decision making skills used in the social/legal/institutional arena of natural resource issues. Finally, the Desktop Mapping course concentrates on fish and wildlife applications of a desktop mapping system.

A description of the content, scheduled dates, locations, tuition, and prerequisite requirements is provided for each course. Appendix A has a "Year At A Glance" table that summarizes information for all of the courses. A description of available software and documentation follows the course descriptions.

Eligibility

The courses are open to individuals from federal, state, and local governments; universities; private businesses; and foreign governments.

Registration Procedures

To register for a course, use the **Course Application Form** in Appendix B. **Course Application Forms** should be mailed or faxed to Colorado State University, Office of Conference Services, Attn: Henrietta Cullinane, Fort Collins, CO 80523-8037 (Fax: 970/491-3568; email HCullinane@vines.colostate.edu). Registration should be made at the earliest possible date and at least 30 days prior to the class as class sizes are limited. Full payment is required at the time of registration. Payment may be made by VISA, MasterCard, check, cash, or purchase order/training forms. Please make all remittance payable to Colorado State University. Training forms and purchase orders should identify the Office of Conference Services, Colorado State University as vendor/contractor. Course confirmation and information for lodging, meeting locations, and other course-related information will be sent when the registration form and payment is received. For additional information call Colorado State University, Office of Conference Services at (970) 491-7767.

Colorado State University is an equal opportunity/affirmative action institution and complies with all Federal and Colorado State laws, regulations, and executive orders regarding affirmative action requirements. The Office of Equal Opportunity is located in Room 21 Spruce Hall. In order to assist Colorado State University in meeting its affirmative action responsibilities, ethnic minorities, women, and other protected class members are encouraged to apply and to so identify themselves.

If you are ordering software, please use the **Software Application Form** also located in Appendix B. **Software Application Forms** should be mailed to MESC Contractor c/o Program Manager, 4512 McMurry Avenue, Fort Collins, CO 80525-3400. For additional information, call (970) 226-9413.

Cancellation Policy

We reserve the right to limit the number of participants and cancel the course if deemed necessary due to lack of participation. IN THE EVENT THAT A MINIMUM NUMBER OF PARTICIPANTS IS NOT REGISTERED WITHIN 30 DAYS OF THE COURSE DATE, THE COURSE WILL BE CANCELED AND ALL REGISTRANTS WILL RECEIVE A FULL TUITION REFUND. THERE WILL BE NO CANCELLATION FEE ASSESSED FOR REGISTRANTS CANCELING 30 DAYS PRIOR TO THE COURSE STARTING DATE. NO REFUNDS WILL BE MADE FOR ANY CANCELLATION RECEIVED LESS THAN 30 DAYS BEFORE THE COURSE STARTING DATE.

Lodging and Transportation Arrangements

Participants must make their own lodging and transportation arrangements, except for the IF305 course (see course description). Upon registration, information will be sent from the Colorado State University, Office of Conference Services, regarding available lodging in the area. We suggest that refundable airline tickets be purchased in the event a course is canceled.

Training is a primary tool or method of facilitating development.

PERSONNEL MANAGEMENT IN GOVERNMENT
SAFRITZ, HYDE AND ROSENBLOOM, P. 403

Natural Resources Management Courses

Habitat Evaluation Procedures

Course #NR561
HABITAT EVALUATION PROCEDURES (HEP)

Dates and Locations:
Sep. 11–15, 1995; Portland, ME
Nov. 6–10, 1995; San Diego, CA
Mar. 11–15, 1996; New Orleans, LA
May 20–24, 1996; Chicago, IL
July 15–19, 1996; Fort Collins, CO
Sep. 9–13, 1996; Seattle, WA

Tuition: $600 (+$65 if taken for graduate credit) Tuition includes HEP Software and manuals.

Length: 5 days; 38 hours

Class size: 36 minimum

Prerequisite: None

Audience: This course is intended for personnel responsible for: (1) field work and data interpretation of water resource projects, permits, license applications, and environmental assessments/impact statements; (2) development and implementation of wildlife, forest, or overall habitat management plans; and (3) review of environmental assessments, habitat management, and mitigation.

Course Description: This course introduces the Habitat Evaluation Procedures (HEP), a state-of-the-art technique for impact assessment and resource management. Emphasis is on the use of Habitat Suitability Index (HSI) models to assist in problem analysis, development of management plans, and decision-making. Tuition includes HEP Software and manuals. This course can be taken for two semester hours of graduate credit through Colorado State University, Division of Continuing Education, for an additional cost of $65.

Objectives: Upon completion of the course, participants will be able to:

- Participate as a member of a HEP team.
- Develop mitigation plans.
- Create management plans.
- Determine when to use HEP.

Course #HEP300
USING HEP AND HSI SOFTWARE

Date and Location:
July 22–23, 1996; Fort Collins, CO

Length: 2 days; 16 hours

Tuition: $300

Class size: 15 maximum

Prerequisite: NR561 or permission of instructor

Audience: The course is intended for persons responsible for: (1) designing and processing field data from a HEP study; (2) building or modifying HSI models; and (3) using, analyzing, and interpreting the results of a HEP study.

Course Description: This course provides "hands-on" training in the use of HEP and HSI software. Participants will also practice data entry, file modification, and file management and analysis using microcomputers. The course does not require a computer background or a knowledge of programming. Software and user's manuals are provided.

Objectives: Upon completion of the course, participants will be able to:

- Compute Habitat Units (HUs) for a HEP study.
- Analyze field data and select project alternatives.
- Determine HU gains and losses for projects.
- Calculate compensation requirements.
- Review HSI models.
- Modify HSI models.
- Construct HSI models.
- Calculate HSI values from field data.

Course #HEP400
ADVANCED RECREATION ECONOMIC TECHNIQUES

Date and Location:
July 24–26, 1996; Fort Collins, CO

Length: 3 days; 24 hours

Tuition: $350

Class size: 20 maximum

Prerequisite: None

Audience: It is designed for economists, recreation planners, wildlife biologists, and others who participate in benefit-cost or other economic studies.

Course Description: This course teaches state-of-the-art techniques in recreation economics. The course includes a presentation of recreation valuations and demand estimating methods such as Travel Cost Method and Contingent Value Method. Workbook exercises allow participants to apply the two methods to typical projects. Case studies of small boat marinas, beach recreation, reservoir drawdown, and forest recreation illustrate the widespread applicability of the methods.

Objectives: Upon completion of the course, participants will be able to:

- Apply techniques to value recreational, wildlife, and non-marketed resources.
- Determine when to apply various economic techniques for project analysis.

Course #HEP410
INTRODUCTION TO HEP

Dates and Locations: With at least three months advance notice, this course can be conducted at a requested location pending instructor availability.

Length: 2 days; 16 hours

Class size: 25 maximum

Prerequisite: None

Audience: This course is recommended for biologists, resource specialists, and planners who will be involved in HEP studies in the near future, and those who completed the HEP course prior to 1989 and need an update, or those wishing an overview of HEP.

Course Description: This course is designed for those who have taken NR561 but have not used their training or applied HEP in the past two to three years, or wish an overview of HEP. The course includes: a comprehensive summary of HEP; recent modifications and innovations in the modification of HSI models, software use, and data analysis and interpretation as well as review of the importance of teamwork.

> *"But civilization can only revive when there shall come into being in a number of individuals a new tone of mind independent of the one prevalent among the crowd and in opposition to it, a one of mind which will gradually win influence over the collective one, and in the end determine its character. It is only an ethical movement which can rescue us from the slough of barbarism, and the ethical comes into existence only in individuals."*
> — ALBERT SCHWEITZER

HEP AND HSI SOFTWARE VIDEODISC

This auto-tutorial videodisc instructs students in the use of the HEP and HSI software. It incorporates the information covered in HEP300 and provides the student the option to work through the course at her/his own pace. The tutorial is flexible enough to meet the specific needs of a user. A novice may progress through the exercises in a preselected sequence; an advanced user may select specific exercises of particular interest. Several individuals within an office can learn the software for one price. The cost includes rental of the videodisc player and monitor, videodisc, operating software, user's guide, and cables. The user must have an IBM-PC compatible computer. Copies of the HEP and HSI software and user's manuals are included in the cost. The costs vary depending on the location of the user. For information regarding rental of the course, contact:

Richard Stiehl
National Biological Service
4512 McMurry Avenue
Fort Collins, CO 80525-3400
(970) 226-9421

Instream Flow

The Instream Flow Incremental Methodology (IFIM) is a habitat-based impact assessment and water management tool used to manage fishery habitat in a stream. The IF100 introductory course is completed through independent study that utilizes a short video and a supporting document. The IF250 correspondence course covers the theory and concepts of IFIM. The companion course to IF250 is IF251, a computer-based, practical-application course that is based on IFIM case studies. IF250 and IF251 are prerequisites to the data-collection and analysis courses (IF300 level) that teach specific skills for anyone planning to directly conduct or oversee an IFIM study. These courses are important for those who are hands-on data managers or who need to understand the analytical techniques of IFIM. Collectively, IFIM and Managing Environmental Conflict (EC) courses provide an extensive base of knowledge and skills to manage stream flows in a technically and institutionally complex arena.

General Course Information

Course Number Course Title	Audience	Type of Course	Length of Course
[illegible]	[illegible]	[illegible]	[illegible]
IF250 Theory and Concepts Of IFIM	Stream Ecologists Fishery Biologists Hydrologists Project Managers	Correspondence	40 Hours
[illegible]	[illegible]	[illegible]	[illegible]
IF305 IFIM Stream Habitat Sampling Techniques	Stream Ecologists Fishery Biologists Project Managers	Field Exercises Lectures	36 Hours
[illegible]	[illegible]	[illegible]	[illegible]
IF312 Stream Temperature Modeling	Stream Ecologists Fishery Ecologists Water Quality Specialists	Lectures Exercises Computer Usage	36 Hours

Course #IF100
INSTREAM FLOW INCREMENTAL METHODOLOGY OVERVIEW

Registration: This is a correspondence course. The **Course Application Form** in Appendix B is required to obtain an IFIM overview video for purchase. A supporting document titled "A Primer For IFIM" is also provided.

Length: The IFIM overview video (total time of 37 minutes) and the Primer require approximately 3 hours to view and read. The video addresses three issues: when to use IFIM; the planning phases of IFIM; and the science behind IFIM modeling.

Tuition: $100 to purchase the video and one copy of the Primer. Extra copies of the Primer are available for $2/copy.

Prerequisite: None

Audience: The course is intended for supervisors, project managers, and individuals who need a first time introduction to IFIM. The course can be taken by an individual or a group of people.

Course #IF250
THEORY AND CONCEPTS OF THE INSTREAM FLOW INCREMENTAL METHODOLOGY

Registration: This is a correspondence course. The course Application Form in Appendix B is required to obtain the course material. One application is required for each individual taking the course.

Length: This course takes approximately 40 hours to complete depending on an individual's experience with instream flow issues.

Tuition: $150

Prerequisite: None

Audience: This course is designed for stream ecologists, fishery biologists, hydrologists, and project managers.

Course Description: The purpose of IF250 is to provide students with an in-depth overview of all aspects of an application of the IFIM. This course presents the theory, concepts, and application logic about the five phases of IFIM: problem identification, study planning, data collection and analysis, alternative analysis, and problem resolution. A course textbook and a workbook are provided. To receive a Certificate of Completion, the participant must pass a written exam. IF250 is a prerequisite to the IF251 Practical Applications of the IFIM course and to the IF300 series courses.

Objectives: Upon completion of this course, participants will be able to:

- Diagnose the institutional, physical, and biological issues in an instream flow problem.
- Identify critical information needs for resolving the issues.
- Scope, schedule, and budget an IFIM study plan.
- Participate in layout, organization and quality control during study implementation.
- Formulate and evaluate operational alternatives.
- Recognize various negotiating strategies and tactics.

"If you can imagine it, you can achieve it; if you can dream it, you can become it."
— WILLIAM ARTHUR WARD

Course #IF251

PRACTICAL APPLICATIONS OF THE INSTREAM FLOW INCREMENTAL METHODOLOGY

Date and Location:
Mar. 4–8, 1996; Fort Collins, CO

Length: 5 days; 36 hours

Tuition: $550

Prerequisite: IF250 or IF200

Class size: 16 minimum, 20 maximum

Audience: The course is intended for those responsible for: (1) planning alternative water delivery schedules and annual water budgets; (2) formulating, evaluating, and negotiating mitigation or stream restoration alternatives, and (3) conducting reviews of IFIM studies completed by external agencies or firms.

Course Description: This course provides training in the use of the IFIM for impact and alternative analysis. The course is structured around the solution of case studies from problem identification and study planning through alternatives analysis and negotiating solutions. The course integrates the concepts from IF250 through hands-on labs and tutorials and guides student interactions in the solution of various aspects of real instream flow problems. At the completion of the course, students will receive software and demonstration data used in the case studies as well as tutorials to instruct students in the use of software used in class. Experience using MS/DOS operating system and computational spreadsheets will enhance the learning experience in the class but is not required. Certificate of Completion is awarded.

Objectives: Upon completion of this course, participants will be able to:

- Conduct quality assurance reviews of intermediate model outputs from the IFIM.
- Formulate and test alternative water delivery schedules.
- Compare mitigation and restoration plans in an interdisciplinary problem setting.
- Negotiate solutions to multiple-objective water resource management problems.
- Adapt commercially available spreadsheet software to perform exercises presented in IF 250.

Course #IF305

IFIM STREAM HABITAT SAMPLING TECHNIQUES

Date and Location:
Aug. 26–30, 1996; Pingree Park, CO

Length: 5 days; 36 hours

Tuition: $600

Food and Lodging: Approximately $300.00. Participants are housed in a residence accommodating two people per room (includes private bath). Meals are served cafeteria style. Transportation between Fort Collins and the campus is provided. Transportation from Fort Collins to Pingree Park is provided for participants that arrive on Sunday. Course starts Monday 8 a.m.

Class size: 14 minimum, 21 maximum

Prerequisite: IF250 or IF200

Audience: The course is for individuals responsible for designing, conducting, and/or reviewing stream microhabitat studies.

Course Description: This is an application course on the use of stream habitat sampling techniques and equipment required for Instream Flow Incremental Methodology microhabitat studies. Note that the foundational principles, concepts, and analytical techniques used with IFIM are covered in IF250 and are not reviewed in this course. Certificate of Completion is awarded. The course is held at the Colorado State University's mountain campus (9000 ft. elevation).

Objectives: Upon completion of this course, participants will be able to:

- Design a stream sampling strategy based upon study objectives.
- Apply stream segmentation criteria for identifying macrohabitat segments.
- Identify and quantify mesohabitat types within a segment.
- Quantify the depth, velocity, substrate, and cover in mesohabitat types.
- Construct an aggregate mesohabitat model to represent a macrohabitat segment.
- Properly use and conduct routine maintenance on required surveying and hydrologic sampling equipment.

Course #IF310
USING THE COMPUTER-BASED PHYSICAL HABITAT SIMULATION SYSTEM (PHABSIM)

Date and Location:
April 15–19, 1996; Fort Collins, CO
Sep. 16–20, 1996; Logan, UT

Length: 5 days; 36 hours

Tuition: $650

Class size:
16 minimum, 20 maximum for Fort Collins, CO
20 minimum, 30 maximum for Logan, UT

Prerequisite: IF250 or IF200

Audience: The course is designed for those who will be directly involved with computer modeling of physical habitat in streams.

Course Description: This computer-use course presents the technical concepts, application logic, and menu of computer programs to understand why and how to use the Physical Habitat Simulation System (PHABSIM). PHABSIM simulates hydraulic relationships of numerous stream flows with water depths and velocities in a rigid channel. Then it quantifies the relationship of hydraulic and channel index variables (depth, velocity, substrate, and cover) with suitability for evaluation species or water-related recreation. The model is useful when relatively steady flow is the major determinant controlling the riverine resources. Prior IBM-PC experience with editors and computational spreadsheets is recommended but not required. Lecture notes, a lab workbook, and the PHABSIM software and manual are provided. A certificate of completion is awarded.

Objectives: Upon completion of this course, participants will be able to:

- Understand the concepts of stream hydraulics and physical habitat analysis.
- Describe PHABSIM's calculations, components, and information flow.
- Simulate the effects of changes in flow on depth and velocity.
- Process data and understand field measurements required for PHABSIM.
- Conduct, interpret, critique, and defend physical habitat analyses.

Course #IF312
STREAM TEMPERATURE MODELING

Date and Location:
Jan. 22–26, 1996; Sacramento, CA

Length: 5 days; 36 hours

Tuition: $600

Class size:15 minimum, 21 maximum

Prerequisite: IF250, IF251 or IF200

Audience: Individuals directly involved with computer modeling of water temperatures, and fishery biologists who comment on proposed changes in water project operations or designing impact evaluation studies.

Course Description: This course concentrates on the theory and application of water temperature modeling. Course participants will develop a knowledge of stream geometry, hydrology, and meteorology related to the understanding and prediction of stream temperatures. Topics covered include the models' assumptions and limitations, calibration and verification, troubleshooting, field data collection, parameter estimation, handling missing data, quality control, and linkage to other IFIM programs. Small group, hands-on exercises reinforce lecture concepts. A course notebook, temperature model software, and documentation are provided. Certificate of Completion is awarded.

Objectives: Upon completion of this course, participants will be able to:

- Describe the theoretical basis, assumptions, and limitations of the temperature model.
- Explain the function of the stream geometry, hydrology, and meteorology components of the temperature model.
- Know how to enter data, run, and interpret output from the network and stream reach versions of the model.
- Calibrate the model.
- Use the model to predict temperatures under altered conditions.
- Review a completed temperature study for quality assurance.

Managing Environmental Conflict

General Course Information

Course Number Course Title	Audience	Type of Course	Length of Course
[redacted]	[redacted]	[redacted]	[redacted]
EC420 Expert Witness for Natural Resources	Pre-Expert Witness Regulatory Agency Staff	Lectures Exercises	16 Hours

Course #EC417
NATURAL RESOURCES NEGOTIATION AND DECISION MAKING

Date and Location:
Oct. 24–26, 1995; Fort Collins, CO
Jan. 23–25, 1996; San Diego, CA
May. 7–9, 1996; Fort Collins, CO

Length: 3 days; 20 hours

Tuition: $400

Class size: 20 minimum, 40 maximum

Prerequisite: None

Audience: This course is designed for supervisors, project managers, and policy analysts.

Course Description: This advanced course focuses on developing skills in interpersonal and interorganizational negotiations and decision making in a wide range of natural resource issues including endangered species and water resource management (including IFIM studies). Certificate of Completion is awarded.

Objectives: Upon completion of this course, participants will be able to:

- Diagnose the negotiation strategy employed by others.
- Recognize elements of effective communication.
- Use the tactics of three classic negotiation strategies.
- Negotiate more effectively when not in control of the decision process.

Course #EC420
EXPERT WITNESS FOR NATURAL RESOURCES

Date and Location:
Feb. 12–13, 1996; Fort Collins, CO

Length: 2 days; 16 hours

Tuition: $300

Class size: 20 minimum, 40 maximum

Prerequisite: None

Audience: Intended for people with limited trial experience.

Course Description: This course explains how natural resource managers can be effective when working with lawyers as expert witnesses. The course clarifies the concepts of the theory of the case, discovery, deposition, trial preparation, and direct and cross-examination. This course provides a road map of the legal process and offers suggestions for making the expert's participation both effective and less threatening. Certificate of Completion is awarded.

Objectives: Upon completion of this course, participants will be able to:

- Understand the role of an expert witness in a trial.
- Prepare for direct and cross-examination.
- Work effectively with lawyers during trail preparation.

Desktop Mapping

Course #DSS200

DESKTOP MAPPING FOR FISH AND WILDLIFE PROFESSIONALS USING QUICKMAP SOFTWARE

Dates and Locations: To Be Announced
With at least three months advance notice, this course can be conducted at most locations upon request and pending availability of instructors.

Length: 4 days; 32 hours

Class size: 16 maximum

Tuition: $500

Prerequisite: None

Audience: This course is intended for fish and wildlife professionals who need to develop and display spatial data, but cannot afford to acquire, learn, and use a more sophisticated GIS.

Course Description: This course concentrates on fish and wildlife applications of the QuickMAP desktop mapping software and cartographic principles of computer mapmaking. Over the four days, course participants will be introduced to spatial data concepts, terminology, and processing procedures applicable to both desktop mapping and geographic information systems (GIS). Hands-on exercises allow participants to enter, modify, and display resource map data. Examples show students how to exchange data with other graphics, data base management, and GIS software. A portion of the last day is reserved to assist participants in applying these skills to their own project data. (Participants should bring a drafted map or spatial data files on diskettes.) Materials provided include a workbook, QuickMAP software, manuals, and example map data. Class size is limited to two students per workstation (a 386 PC, VGA monitor, mouse, and digitizing tablet). It is highly desirable that students already have a working knowledge of DOS commands and file management.

QuickMAP software, training modules, data, and practice exercises for distance learning are available through NBS Midcontinent Ecological Services Center (MESC: 907-226-9413)

Objectives: Upon completion of this course, participants will be able to:

- State the basic concepts of computerized mapping.
- Compare similarities and differences between QuickMAP and other desktop mapping systems.
- Apply the basic QuickMAP menus and commands.
- Exchange data between QuickMAP and other software packages.

Point of Contact: Ron Osborn, MESC,
Phone: (907) 226-9380

> ***"All of us could take a lesson from the weather, it pays no attention to criticism."***
> — NORTH DEKALB KIWANIS CLUB BEACON

Available Software and Documentation

Habitat Evaluation Procedures Accounting Software

Habitat Evaluation Procedures (HEP) Accounting Program VER 2.2

Cost: $35

The HEP accounting program uses the area of available habitat and HSI to compute the values needed for the Habitat Evaluation Procedures as described in the Ecological Services Manual (ESM 102) and the HEP training course (NR561). The compiled program requires two floppy disk drives or a fixed disk and 64 kilobytes of Random Access Memory (RAM).

Micro-HSI Software

Habitat Suitability Index (HSI) Modeling System VER 2.1

Cost: $35

The HSI software is a system of programs that uses mathematical models to compute an HSI value for selected species from field measurements of habitat variables. The development and use of HSI models are described in the Ecological Services Manual (ESM 103) and the HEP training course (NR561). Micro-HSI requires a fixed disk with at least 1 megabyte of mass data storage and a Microsoft compatible BASIC interpreter, such as BASIC, BASICA, or GWBASIC.

Instream Flow

All of these software programs require an IBM-compatible microcomputer running MS-DOS or PC-DOS 2.0 or later with at least 256K of memory. Some programs may have additional requirements, such as DOS Version 3, more memory or hard disk storage, 640x200 graphics, or a math co-processor.

Time Series Library—TSLIB II

Cost: $100

The TSLIB programs provide for data entry, analysis, and display of daily or monthly stream flow or habitat values. Also included is the Watstore Use Program and Documentation retrieval programs for obtaining flow or water quality data from the U.S. Geological Survey and a shareware communications program (PC-TALK). A user's manual is provided. The TSLIB software and manual are part of the course materials provided to IF251 course participants.

Physical Habitat Simulation System—PHABSIM VER 2.0

Cost: $120

This extensive set of programs is designed to predict the micro-habitat (depth, velocities, channel indices) conditions in rivers as a function of streamflow, and the relative suitability of those conditions to aquatic life. A reference manual is provided. A math co-processor and DOS 3.0 is highly recommended. The PHABSIM software and manual are part of the course materials provided to IF310 course participants.

Stream Network and Stream Segment Temperature Models

Cost: $110

This set of programs simulates steady-state stream temperatures throughout a dendritic stream network handling multiple time periods per year. The software requires a math co-processor and 384K. Also included is a set of programs designed to predict the steady state stream temperature within a single stream segment for a single time period. Companion programs predict the solar radiation and segment shading parameters. A user's manual is provided. The stream network and segment models and the manual are provided to IF312 course participants.

Managing Environmental Conflict

Legal Institutional Analysis Model—LIAM

Cost: $30

The LIAM software is used as a conflict resolution tool and provides a systemic method to: (1) diagnose an IFIM or other natural resource conflict involving several organizations; (2) plan for participation in a negotiation; and (3) predict organizational behavior. A user's manual is provided. The LIAM software and manual are part of the course materials provided to IF251 and EC417 course participants.

Desktop Mapping

QuickMAP: A Desktop Mapping System for Decision Support

Cost: $75

QuickMAP is a comprehensive desktop mapping toolkit for end user computing that provides decision support to fish and wildlife professionals in their daily resource assessments and decision-making. Desktop mapping should be distinguished from more sophisticated Geographic Information Systems. It is characterized by its relative ease of use and greater integration with other PC applications, but it has limitations in its analysis and modeling capabilities. Most results are visually portrayed to uncover trends, patterns, and associations. QuickMAP has been designed for ease of use with a graphical user interface. A point device is used with windows, drop-down menus, dialogues, and alerts to simplify most aspects of computer mapping. QuickMAP utility programs register geographic information to several different projection systems and exchange data with full-featured Geographic Information Systems such as Arc/Info, and Data Base Management Systems such as dBASE III. Map output can also be enhanced by using metafiles with commercial drawing software. Final drawings are then ready to import into desktop publishing software including WordPerfect.

QuickTEXT Software and Data Base Management Technique

Cost: $35

The QuickTEXT software and accompanying set of tutorials emphasizes information management for personal use by fish and wildlife professionals. Materials include a fully operational data base management and reporting system called QuickTEXT packaged with a complete user's manual and sample data bases. QuickTEXT is specifically designed to handle information characteristic of resource management activities; that is, information having a high probability to change either in substance or organization. Some noteworthy features that QuickTEXT provides include handling up to 20 pages text as the value in a records field, supporting multiple values in a single field, providing full boolean search capabilities, and supporting a variety of text import and export formats. These features make it practical to manage large amounts of research notes, abstracted materials such as an annotated bibliography, and strategic planning documents. Efficient storage of data allows QuickTEXT to manage such large amounts of information on a 286 personal computer with as little as 256 kilobytes of memory. Software may be run from a floppy disk, but a hard disk is recommended. Requires MS-DOS™ ver 2.01 or higher. Specify whether software should be provided on a 5.25" or 3.5" disk.

"Weekends are a bit like rainbows; they look good from a distance but disappear when you get up close to them."

— JOHN SHIRLEY

National Biological Service and
Colorado State University

Appendix A—NBS/CSU Year At A Glance

Course Number	Course Title	Date	Location	Tuition	Page
IF100	Instream Flow Incremental Methodology Overview	Video		$100	87
IF250	Theory and Concepts of the Instream Flow Incremental Methodology	Correspondence		$150	87
NR561	Habitat Evaluation Procedures (HEP)	Sept. 11–15, 1995	Portland, ME	$600	83
EC417	Natural Resources Negotiation and Decision Making	Oct. 24–26, 1995	Fort Collins, CO	$400	90
NR561	Habitat Evaluation Procedures (HEP)	Nov 6–10, 1995	San Diego, CA	$600	83
IF312	Stream Temperature Modeling	Jan. 22–26, 1996	Sacramento, CA	$600	89
EC417	Natural Resources Negotiation and Decision Making	Jan. 23–25, 1996	San Diego, CA	$400	90
EC420	Expert Witness for Natural Resources	Feb. 12–13, 1996	Fort Collins, CO	$300	90
IF251	Practical Applications of the Instream Flow Incremental Methodology	March 4–8, 1996	Fort Collins, CO	[illegible]	[illegible]
NR561	Habitat Evaluation Procedures (HEP)	March 11–15, 1996	New Orleans, LA	$600	83
[illegible]	Using the Computer-based Physical [illegible]	Apr. [illegible], 1996	Fort Collins, CO	[illegible]	[illegible]

NATIONAL BIOLOGICAL SERVICE AND COLORADO STATE UNIVERSITY

EC417	Natural Resources Negotiation and Decision Making	May 7–9, 1996	Fort Collins, CO	$400	90
[illegible]	Habitat Evaluation Procedures (HEP)	May 20–24, 1996	Chicago, IL	[illegible]	[illegible]
NR561	Habitat Evaluation Procedures (HEP)	July 15–19, 1996	Fort Collins, CO	$600	83
[illegible]	Using HEP and HSI Software	July 22–23, 1996	Fort Collins, CO	[illegible]	[illegible]
HEP400	Advanced Recreation Economic Techniques	July 24–26, 1996	Fort Collins, CO	$350	84
[illegible]	IFIM Stream Habitat Sampling Techniques	Aug. 26–30, 1996	[illegible]	[illegible]	[illegible]
NR561	Habitat Evaluation Procedures (HEP)	Sept. 9–13, 1996	Seattle, WA	$600	83
IF310	Using the Computer-based Physical Habitat Simulation system (PHABSIM)	Sept. 16–20, 1996	Logan, UT	[illegible]	[illegible]

"Wisdom is the quality that keeps you from getting into situations where you need it"
— ANON

Appendix B—Course Application Form

Colorado State University/National Biological Service

Name ______________________________

Business/Agency ______________________________

Business/Agency Address ______________________________

City ______________ State ______________ Zip ______________

Business Phone ( ) ______________ Fax ( ) ______________

Electronic Mail Address ______________________________

Please indicate with an "X" the courses you are applying for:

______	NR561	9/11–15/95	Portland, ME	$600*
______	NR561	11/6–10/95	San Diego, CA	$600*
______	NR561	3/11–15/96	New Orleans, LA	$600*
______	NR561	5/20–24/96	Chicago, IL	$600*
______	NR561	7/15–19/96	Fort Collins, CO	$600*
______	NR561	9/9–13/96	Seattle, WA	$600*
______	HEP300	7/22–23/96	Fort Collins, CO	$300
______	HEP400	7/24–26/96	Fort Collins, CO	$350
______	IF100		Correspondence	$100
	Additional primers:		Number ordered ______	$2/each
______	IF250		Correspondence	$150
______	IF251	3/4–8/96	Fort Collins, CO	$550
______	IF305	8/26–30/96	Pingree Park, CO	$600
______	IF310	4/15–19/96	Fort Collins, CO	$650
______	IF310	9/16–20/96	Logan, UT	$650
______	IF312	1/22–26/96	Sacramento, CA	$600
______	EC417	10/24–26/95	Fort Collins, CO	$400
______	EC417	1/23–25/96	San Diego, CA	$400
______	EC417	5/7–9/96	Fort Collins, CO	$400
______	EC420	2/12–13/96	Fort Collins, CO	$300
______	*Academic credit (optional)			$65/course

Total Amount Due: $ __________

Please indicate method of payment made payable to Colorado State University.
A $17.00 fee will be assessed on any returned check.

☐ Check or money order enclosed.
☐ Purchase order/Training form enclosed.
☐ Bill to: ☐ Mastercard ☐ VISA Card No. ______________ Exp. Date ______

Return application form and payment to: Henrietta Cullinane, Office of Conference Services, Colorado State University, Fort Collins, CO 80523-8037; Phone: (970) 491-7767; Fax: (970) 491-3568. *No refunds will be made for cancellations received less than 30 days before the course starting date.*

Software Application Form

Midcontinent Ecological Science Center Contractor
c/o Program Manager

Name ______________________________

Business/Agency ______________________________

Business/Agency Address ______________________________

City ______________________ State __________ Zip __________

Business Phone (   ) ______________________ Fax (   ) ______________________

Electronic Mail Address ______________________________

Please indicate the number of packages you are ordering below:

______	HEP Accounting Program VER 2.2	$35
______	HSI Modeling System VER 2.1	$35
______	Time Series Library—TSLIB II	$100
______	Physical Habitat Simulation System—PHABSIM VER 2.0	$120
______	Stream Network and Stream Segment Temperature Models	$110
______	Legal Institutional Analysis Model—LIAM	$30
______	QuickText	$35
______	QuickMAP	$75

Total Amount Due: $ __________

Please contact the MESC Contractor (970-226-9413 or 970-226-9493) for remittance information.

Return Application Form and Payment to:

MESC Contractor
c/o Program Manager
4512 McMurry Avenue
Fort Collins, CO 80525-3400

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Retrieving the NETC Electronic Catalog Files

Instructions for Retrieving the NETC Electronic Catalog Files

In CC:Mail:

1. Address the message to R9IRMLIB*
2. In the subject line enter *Send Training* to get the initial instructions

OR

Enter *Send Train.xxx* with xxx being the extension for the file you want from the files listed below. For example, if you want the files for Education & Outreach Training, you would enter *Send Train.out*.

Train.int..........Introductory Training

Train.res..........Resource Conservation Training

Train.out.........Education and Outreach Training

Train.exc.........Employee Development Training

Train.sup.........Supervisory and Management Training

Train.tec ....Computer & Statistical Applications Training

Train.oth.........Other USFWS Program Area Training

Train.law.........Law Enforcement Training

Train.nbs.........NBS-National Biological Service Training through Colorado State

To receive the "Year At A Glance" listing of courses, dates and locations, enter *Send Trainyag.dat*.

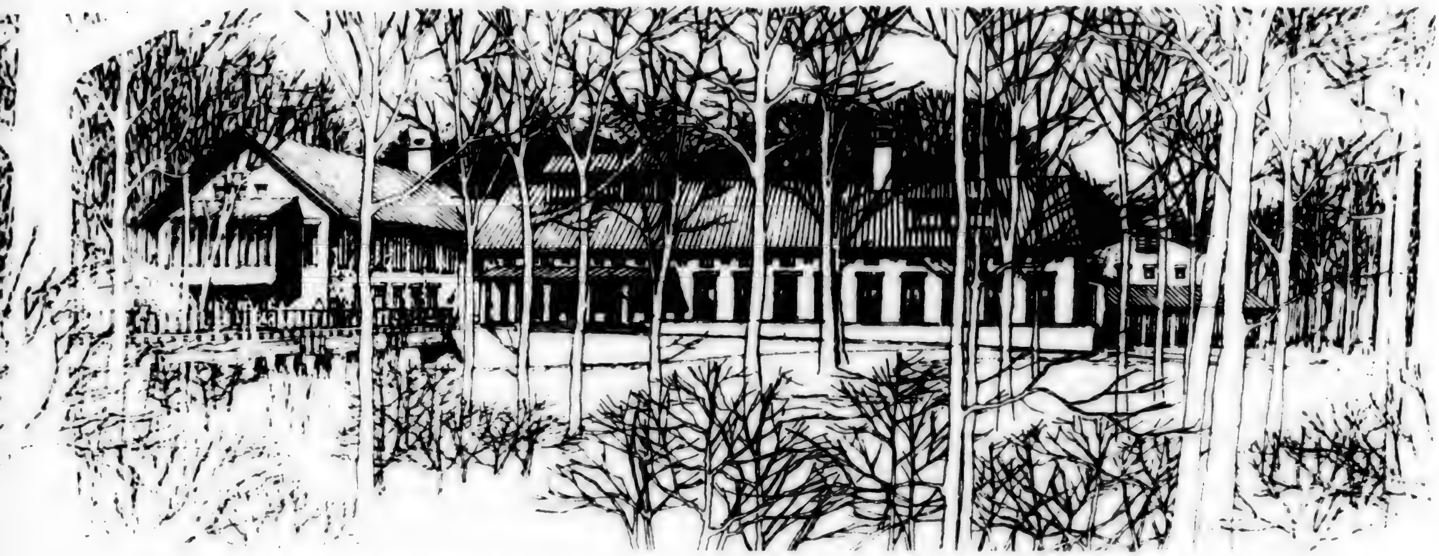
To receive a copy of the training application, enter *Send Train.app*.

To receive general information about training, enter Send Train.gen.

You will receive the requested file mailed back to your mailbox, usually the same working day.

Contact your IRM office if you have difficulty retrieving the NETC Electronic Catalog.

**Internet users outside the service may address E-mail requests to R9IRMLIB@Mail.fws.gov*



Architect's rendering of commons building for National Education and Training Center. The commons houses the dining room, library, and serves as the social hub of the facility.

Points of Contact

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	Mona Womack	Assistant Director	703/358–1817
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Employee Excellence	Bonnie Schires	Branch Chief	304/876–1600 x 240
Environmental Conservation	Dan Benfield	Branch Chief	304/876–1600 x 393
Supervisory & Management	Karen Cartlidge	Branch Chief	304/876–1600 x 291
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FWS-NETC Application

Application Information: Please complete a separate application for *each* course. The application should be sent directly to the National Education and Training Center (NETC) no later than the course closing date as listed in the Year At a Glance.

Cancellations: If, after submitting an application, you find you cannot attend, please notify the NETC as soon as possible.

Tuition: There is no tuition charge for FWS or NBS employees. Applicants from the private sector must send payment with application. **Please Do Not Send Cash**. Checks or money orders should be made payable to: **U.S. Fish and Wildlife Service** and mailed with the application. If you are faxing your application, your payment should be sent to the address below.

Mail or fax applications to:
The REGISTRAR, USFWS-NETC
Route 3, Box 49
Kearneysville, WV 25430
Fax: (304) 725-0664

Course Information

Course No. Title

Date Location

Applicant Information *(business address/telephone preferred)*

Name Social Security Number*

Organization (i.e. FWS)

Duty Station

Address

City State Zip

Business Phone ( ) Fax ( )

Current Employment Status

Position:

Supervisor's Name

☐ Federal ☐ Student ☐ Consultant ☐ Tribal

☐ State ☐ Private ☐ Other Public Agency

Special Needs/Requirements

Billing Information

Agency Name

Address

City State Zip

Attention Telephone ( )

**Providing your SSN is voluntary. It will be used internally to verify training course attendance statistics. It will not be disclosed to other sources.*

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United States
Department of the Interior
Fish and Wildlife Service
National Education and Training Center
4401 North Fairfax Drive–Room 304 Webb
Arlington, VA 22203

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